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Annual Statistical Report

AMERICAN IRON AND STEEL INSTITUTE

1980

AMERICAN IRON AND STEEL INSTITUTE
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FOREWORD

For over 125 years the American Iron and Steel Institute and its predecessor associations have served the American steel industry in the collection and distribution of steel industry statistics.

A number of changes in data coverage and presentation will be observed in this report. These changes evidence major efforts to make industry data more accurate, comprehensive, and informative. These efforts will intensify, as the industry prepares, hopefully, for a decade of revitalization.

The majority of the data found in the Annual Statistical Report is compiled from submissions by reporting companies, although some series from other published sources are also included. The data in this report largely represent the steel production activities of reporting companies. However, certain financial statistics represent the broader spectrum of corporate activities—including steel and non-steel. For this and other reasons, the coverage of this report may differ somewhat from that found in other publications.

The Institute would like to express its appreciation for the contributions of many individuals in member companies and in the Institute's Statistical Department. Without the contributions of these individuals, the annual report and other statistical publications would not be possible.

DONALD F. BARNETT
Vice President and Economist

May, 1981

NOTES

D—Disclosure
P—Preliminary
R—Revised
n.a.—Not available
Net ton—2,000 pounds
Gross ton—2,240 pounds
Rounded figures do not necessarily add to totals.

SELECTED HIGHLIGHTS

THE IRON AND STEEL INDUSTRY AT A GLANCE

The Selected Statistical Highlights present a ten-year trend from which comparisons of year-to-year changes may be made for those items of the industry that are indicative of the operating level and the financial status of reporting companies. In the use of the highlights, it should be recognized that there is a difference in the universe of reporting companies for each of the major items in the statistical section. This is especially significant for the financial series as compared to other series; for example, the universe for financial data represents companies who in 1980 produced 86.8% of the reported raw steel production. Also, the user should recognize that many of these companies produce and sell products and services other than those related to the steel industry. Therefore, the financial data reported represents the results of the total operations of the steel companies.

SELECTED STATISTICAL HIGHLIGHTS
TABLE 1A—SHIPMENTS, APPARENT SUPPLY, IMPORTS & EMPLOYMENT
(THOUSANDS)

Year	Steel Mill Products—Net Tons				Imports as % of Apparent Steel Supply					Steel Employment (a)
	Total Net Shipments	Less Exports	Plus Imports	Apparent Steel Supply	Total	Japan	EEC	Canada	Other	Average No. of Employees
1980	83,853	4,101	15,491	95,243	16.3	5.0	4.1	2.5	4.7	399
1979	100,262	2,818	17,518	114,962	15.2	5.5	4.7	2.0	3.0	453
1978	97,935	2,422	21,135	116,648	18.1	5.6	6.4	2.0	4.1	449
1977	91,147	2,003	19,307	108,451	17.8	7.2	6.3	1.7	2.6	452
1976	89,447	2,654	14,285	101,078	14.1	7.9	3.2	1.3	1.7	454
1975	79,957	2,953	12,012	89,016	13.5	6.6	4.6	1.1	1.2	457
1974	109,472	5,833	15,970	119,609	13.4	5.1	5.4	1.1	1.8	512
1973	111,430	4,052	15,150	122,528	12.4	4.6	5.3	0.9	1.6	509
1972	91,805	2,873	17,681	106,613	16.6	6.0	6.1	1.1	3.4	478
1971	87,038	2,827	18,304	102,515	17.9	6.7	7.0	1.2	3.0	487
Details on Page:	30	38	44	...	...	49	49	49	49	21

(a) Covering only those employees engaged in the production and sale of iron and steel products and excludes mining and quarrying operations, transportation, warehousing, fabrication and other non-steel producing activities.

TABLE 1B—RAW STEEL DATA
(THOUSANDS OF NET TONS)

Year	World Production	United States				Percent of U.S. Production				
						By Type of Furnace			By Type Cast	
		Production	% of World	Capability	% of Capability	O.H.	BOP	Elec.	Ingots	Continuous
1980	792,104	111,835	14.1	153,700	72.8	11.7	60.4	27.9	79.5	20.3
1979	824,486[R]	136,341	16.5	155,300	87.2	14.0	61.1	24.9	82.9	16.9
1978	790,607	137,031	17.3	157,900	86.8	15.6	60.9	23.5	84.6	15.2
1977	741,828	125,333	16.9	160,000	78.4	16.0	61.8	22.2	87.3	12.5
1976	745,592	128,000	17.2	158,300	80.9	18.3	62.5	19.2	89.3	10.6
1975	712,033	116,642	16.4	153,100	76.2	19.0	61.6	19.4	90.7	9.1
1974	782,798	145,720	18.6	Not Available		24.3	56.0	19.7	Not Available	
1973	768,570	150,799	19.6	"		26.4	55.2	18.4	"	
1972	694,481	133,241	19.2	"		26.2	56.0	17.8	"	
1971	639,907	120,443	18.8	"		29.5	53.1	17.4	"	
Details on Page:	93	55	92			55	55	55	...	...

TABLE 1C—SELECTED FINANCIAL HIGHLIGHTS *
(Millions of Dollars)

Year	Sales	Net Income	Net Income as a % of Sales	Stockholders' Equity †	Net Income as a % of Stockholders' Equity	Working Capital Ratio	Long-Term Debt	Capital Expenditures
1980	$54,086.6	$1,631.8	3.0	$19,123.4	9.0	1.7	$9,376.1	$3,319.1
1979 R	55,140.4	1,154.5	2.1	18,056.6	6.7	1.7	8,717.0	3,311.9
1978	49,033.0	1,276.6	2.6	17,603.7	7.3	1.8	8,763.0	2,595.2
1977	39,399.8	22.3	0.06	18,027.3	0.1	1.8	7,958.9	2,850.3
1976	36,092.5	1,337.4	3.7	17,192.2	7.8	1.9	6,966.5	3,252.9
1975	33,143.8	1,594.9	4.8	16,243.2	9.8	2.0	5,705.3	3,179.4
1974	37,745.0	2,475.2	6.6	14,513.5	17.1	1.8	4,651.2	2,114.7
1973	28,494.9	1,272.2	4.5	13,674.5	9.3	1.9	4,962.9	1,399.9
1972	22,364.9	774.8	3.5	13,281.4	5.8	1.9	5,229.6	1,174.3
1971	20,189.7	562.8	2.8	12,966.6	4.3	1.9	5,144.4	1,425.0
Details on Page:	13	13	13	16	13	...	16	16

† As of January 1 of each year.

TABLE 1D—SOURCE AND APPLICATION OF FUNDS *
(Millions of Dollars)

	Source								Disposition			
Year	Net Income	Less Cash Dividends Declared	Income Reinvested	Depreciation, etc.	Increase (Decrease) in Reserves, etc.	Total Internal Sources	External Debt and Stock	Total Sources of Funds	Capital Expenditures	Increase (Decrease) in Working Capital	Miscellaneous Investment and All Other	Total Disposition of Funds
1980	$1,631.8	$ 602.3	$1,029.5	$1,941.6	$ 293.3	$3,264.4	$ 696.4	$3,960.8	$3,319.1	$684.9	($43.2)	$3,960.8
1979 R	1,154.5	593.4	561.1	1,846.9	605.7	3,013.7	(244.1)	2,769.6	3,311.9	(16.3)	(526.0)	2,769.6
1978	1,276.6	536.1	740.5	1,707.1	261.1	2,708.7	153.5 R	2,862.2 R	2,595.2	719.1	(452.1) R	2,862.2 R
1977	22.3	555.0	(532.7)	1,521.7	366.0	1,355.0	1,101.5	2,456.5	2,850.3	(133.9)	(259.9)	2,456.5
1976	1,337.4	637.1	700.3	1,378.4	235.9	2,314.6	1,396.0	3,710.6	3,252.9	275.0	182.7	3,710.6
1975	1,594.9	657.8	937.1	1,272.8	317.6	2,527.5	1,066.0	3,593.5	3,179.4	(43.8)	457.9	3,593.5
1974	2,475.2	674.4	1,800.8	1,327.2	225.8	3,353.8	(382.8)	2,971.0	2,114.7	935.8	(79.5)	2,971.0
1973	1,272.2	443.1	829.1	1,262.6	66.7	2,158.4	(256.8)	1,901.6	1,399.9	677.0	(175.3)	1,901.6
1972	774.8	402.3	372.5	1,170.7	44.8	1,588.0	105.8	1,693.8	1,174.3	357.9	161.6	1,693.8
1971	562.8	390.3	172.5	1,076.9	46.2	1,295.6	152.8	1,448.4	1,425.0	(55.5)	78.9	1,448.4
Details on Page:	13	13	...	13	16	...	...	...	16	16	...	...

* Represents consolidated reports of steel industry companies who in 1980 produced 86.8% of the reported raw steel production.

TABLE 1E—CAPITAL EXPENDITURES FOR POLLUTION CONTROL FACILITIES

(Millions of Dollars)

Year	Water	Air	Total
1951–1965	$ 209.6	$ 238.8	$ 448.4
1966–1970	315.9	256.9	572.8
1971–1975	439.3	790.6	1,229.9
1976	158.7	330.5	489.2
1977	205.7	329.1	534.8
1978	180.8	277.2	458.0
1979	201.2	449.6	650.8
1980	168.2	342.3	510.5
Total	$1,879.4	$3,015.0	$4,894.4
Authorized for 1981 or later	$ 219.7	$ 641.1	$ 860.8

Note: Capital expenditures in the above table include only those for facilities which were installed primarily for pollution control in domestic iron and steelmaking sectors, including steel company owned mines, quarries and fabricating plants. Total capital expenditures for all purposes, as shown in Tables 1C and 4 include those made by steel companies in both steel and nonsteel operations, domestic and foreign.

FINANCIAL STATISTICS

Income, Dividends, Return on Revenue and Stockholders' Equity
Employment Data
Balance Sheet, Capital Expenditures
BLS Consumer and Producer Price Index

FINANCIAL STATISTICS

Financial data for 1980 includes companies which make up 86.8% of the reported total raw steel production of the entire industry. Other years are based on results of companies representing varying percentages of the entire industry. Such results also include activities which are not part of the steel industry (extractive industries, fabrication, transportation, etc.) Likewise, the employment data for this universe includes the cost of employees engaged in all such operations. Employment data for steel operations of these companies are shown as memoranda data but are not the same perimeter as those included in the employment section. It should also be noted company participation may vary due to a merger or sale.

Indexes on consumer and producer prices of steel mill products in the iron and steel industry are those compiled by the United States Department of Labor, Bureau of Labor Statistics.

TABLE 2—INCOME, DIVIDENDS, RETURN ON REVENUES AND STOCKHOLDERS' EQUITY

(Covering the consolidated statements including all the affiliated interests of the parent companies rendering these reports)

	1980	1979 R	1978	1977	1976	1975	1974	1973	1972	1971
Reporting Companies Represent:										
Blast furnace production (Million net tons)	66.2	83.3	83.9	77.5	83.5	76.1	91.7	96.9	84.9	77.2
Per cent of industry	96.3	95.8	95.7	95.3	96.1	95.2	95.6	96.0	95.5	95.0
Raw steel production (Million net tons)	97.1	119.7	121.7	111.6	116.3	105.1	132.9	138.1	122.1	109.7
Per cent of industry	86.8	87.8	88.8	89.0	90.9	90.1	91.2	91.6	91.6	91.1
Shipments of finished steel products (Million net tons)	74.1	88.3	86.3	81.5	81.8	72.9	101.3	104.3	85.7	81.1
Statement of Income: (Millions of dollars)										
Revenues:										
Sales (Net billing value of products shipped and other services)	$54,086.6	$55,140.4	$49,033.0	$39,399.8	$36,092.5	$33,143.8	$37,745.0	$28,494.9	$22,364.9	$20,189.7
Interest, dividends and other income	935.8	564.4	445.2	307.7	369.9	532.5	498.6	368.3	190.8	168.1
Total Revenue	55,022.4	55,704.8	49,478.2	39,707.5	36,462.4	33,676.3	38,243.6	28,863.2	22,555.7	20,357.8
Costs Applied to Billings and Other Services:										
Employment Costs:										
Wages and salaries (a)	14,078.6	14,396.9	12,976.0	11,218.8	10,222.3	9,232.8	9,579.9	8,312.4	7,177.8	6,454.4
Social security taxes	983.7	982.8	844.2	697.7	635.9	566.4	585.8	509.3	358.2	307.3
Pensions	1,522.7	1,509.0	1,419.3	1,192.5	1,153.1	967.0	791.5	587.2	454.3	368.0
Insurance	1,319.3	1,149.3	1,028.9	913.3	873.7	745.4	585.4	537.2	504.3	472.9
Savings and vacation type plans	‡	‡	‡	‡	76.7	89.4	74.8	53.8	56.3	53.6
Supplemental unemployment benefits	80.3	41.8	66.6	75.0	61.6	42.6	54.8	58.9	58.9	44.2
All other employment costs	572.7	593.7	433.6	312.7	250.3	239.5	186.3	142.5	114.1	93.6
Total Employment Costs	18,557.3	18,673.5	16,768.6	14,410.0	13,273.6	11,883.1	11,858.5	10,201.3	8,723.9	7,794.0
Materials, supplies, freight and other services, etc	31,209.8	31,380.4	27,494.5	22,096.4	19,175.7	17,373.6	19,900.3	14,450.5	10,687.6	9,936.8
Depreciation, depletion and amortization	1,941.6	1,846.9	1,707.1	1,521.7	1,378.4	1,272.8	1,327.2	1,262.6	1,170.7	1,076.9
Interest and charges on debt	836.1	746.4	752.2	605.4	480.7	382.5	353.7	357.4	345.8	332.1
Taxes other than income (b)	771.8	806.6	688.8	533.5	560.8	515.7	482.6	452.5	494.7	475.7
Taxes on income (c)	415.7	383.8	652.5	(433.4)	265.7	653.7	1,846.1	866.7	358.2	179.5
(Gain) or loss on discontinued operations and sales of assets (d)	(341.7)	712.7	137.9	951.6	(9.9)					
Total Costs	53,390.6	54,550.3	48,201.6	39,685.2	35,125.0	32,081.4	35,768.4	27,591.0	21,780.9	19,795.0
Net Income (e)	$ 1,631.8	$ 1,154.5	$ 1,276.6	$ 22.3•	$ 1,337.4	$1,594.9	$2,475.2	$ 1,272.2	$ 774.8	$ 562.8
Per Cent Return on Sales	3.0	2.1	2.6	0.06	3.7	4.8	6.6	4.5	3.5	2.8
Per Cent Return on Stockholders' Equity †	9.0	6.7	7.3	.2	7.8	9.8	17.1	9.3	5.8	4.3
Cash Dividends Declared	$ 602.3	$ 593.4	$ 536.1	$ 555.0	$ 637.1	$ 657.8	$ 674.4	$ 443.1	$ 402.3	$ 390.3
Stockholders:										
Number at end of year:										
Preferred	45,535	55,648	72,572	36,167	33,243	35,176	36,066	36,670	36,922	36,919
Common	743,734	772,014	817,632	779,499	773,635	831,877	899,329	948,452	975,300	1,047,214

(a) Does not include portion of payroll charged to own construction or other nonoperating accounts.
(b) Includes income taxes other than Federal income taxes in years prior to 1973.
(c) Includes only Federal income taxes in years prior to 1973.
(d) Includes only pretax (gains) or losses which were separately disclosed in annual financial statements to stockholders.
(e) Some of the reporting companies, either directly or indirectly through subsidiary companies, are engaged in activities which are not a part of the steel industry and make their reports on a consolidated basis. Hence, "Net Income" as reported by such companies includes the operations of activities not concerned with steelmaking.
† As of January 1 of each year.
‡ Costs included with wages and salaries.
• Reflects substantial impact of permanent plant closings.

TABLE 5—BLS—CONSUMER AND PRODUCER PRICE INDEXES OF STEEL PRICES (1967=100)

Source: United States Department of Labor, Bureau of Labor Statistics

Year	Consumer Price Index	Industrial Commodities	Iron and Steel					
			Steel Mill Products			Other Iron and Steel Products		
			Total	Finished	Semi-Finished	Pig Iron & Ferro-alloys	Scrap Iron & Steel	Fdry. & Forgings
1947	66.9	70.8	45.5	46.0	40.4	64.4	129.0	49.6
1948	72.1	76.9	52.0	52.4	48.7	76.8	162.9	57.3
1949	71.4	75.3	56.4	56.7	53.3	85.3	107.6	59.6
1950	72.1	78.0	59.4	59.5	57.8	87.3	139.3	60.6
1951	77.8	86.1	64.0	64.3	60.9	95.5	158.2	66.2
1952	79.5	84.1	65.4	65.8	62.3	98.8	152.0	66.5
1953	80.1	84.8	70.5	70.8	69.1	104.4	137.2	70.1
1954	80.5	85.0	73.8	73.8	74.2	103.9	106.2	71.7
1955	80.2	86.9	77.2	77.3	78.0	104.6	139.3	73.5
1956	81.4	90.8	83.8	83.8	83.5	114.3	176.3	81.0
1957	84.3	93.3	91.8	91.7	92.5	124.5	155.7	87.3
1958	86.6	93.6	95.0	94.9	95.9	125.1	124.8	89.9
1959	87.3	95.3	96.5	96.5	97.3	125.4	133.4	91.7
1960	88.7	95.3	96.4	96.3	97.1	120.4	110.2	92.4
1961	89.6	94.8	96.0	95.9	97.0	118.4	116.8	92.7
1962	90.6	94.8	95.8	95.7	97.0	113.9	95.2	92.8
1963	91.7	94.7	96.3	96.2	97.4	102.3	91.7	92.8
1964	92.9	95.2	97.1	97.0	98.6	97.1	109.4	93.8
1965	94.5	96.4	97.5	97.5	98.4	100.3	112.6	95.1
1966	97.2	98.5	98.9	98.8	98.8	100.3	106.6	96.8
1967	100	100	100	100	100	100	100	100
1968	104.2	102.5	102.5	102.5	102.3	100.9	93.0	103.0
1969	109.8	106.0	107.4	107.4	107.0	102.1	110.5	106.9
1970	116.3	110.0	114.3	114.3	112.2	114.6	138.9	112.6
1971	121.3	113.9	123.0	123.0	122.7	126.3	114.6	119.2
1972	125.3	117.9	130.4	130.4	130.9	125.4	121.8	124.3
1973	133.1	127.0	134.1	134.1	133.9	129.4	188.0	131.5
1974	147.7	153.8	170.0	170.0	169.0	188.1	353.2	161.4
1975	161.2	171.5	197.2	196.6	206.7	264.7	245.6	194.3
1976	170.5	182.4	209.8	209.0	223.1	261.6	259.0	218.6
1977	181.5	195.1	229.9	229.0	243.6	257.0	231.2	229.9
1978	195.3	209.3	254.4	253.4	270.6	259.7	264.6	248.7
1979	217.7	236.1	280.4	279.5	294.3	296.5	341.9	275.8
1980	247.0	274.2	302.7	301.2	325.3	307.2	328.1	309.0
1980								
Jan.	233.3	260.3	293.7	292.1	318.7	308.1	343.7	297.6
Feb.	236.5	265.4	294.2	292.6	318.9	308.1	365.7	302.2
Mar.	239.9	268.2	295.6	294.1	318.9	308.1	367.8	303.5
Apr.	242.6	270.7	304.1	302.9	322.2	309.5	352.9	305.2
May	245.1	271.2	305.5	304.3	324.2	309.1	301.5	306.1
June	247.8	273.0	305.8	304.6	325.1	309.1	266.1	309.2
July	248.0	275.6	301.0	299.5	325.1	305.8	270.0	311.2
Aug.	249.6	277.3	301.0	299.5	325.1	305.8	300.2	310.8
Sept.	251.9	278.2	301.0	299.4	325.1	305.8	326.9	311.7
Oct.	254.1	281.2	307.5	306.3	325.0	305.8	338.0	316.2
Nov.	256.4	282.7	309.5	308.1	330.6	305.8	345.7	317.5
Dec.	258.7	286.1	313.4	311.4	344.6	305.8	358.5	317.2

EMPLOYMENT AND WAGE DATA

Number of Employees—Monthly Average
Hours Worked Per Week
Wages and Salaries Paid
Payroll Cost Per Hour Worked
Employment Cost Per Hour Worked
Collective Bargaining Agreements
Output Per Man-hour
Occupational Injury/Illness
Age and Length of Service

The data on number of employees, hours worked, wages and salaries paid, payroll cost per hour and employment cost per hour cover only those employees engaged in the production and sale of iron and steel products as reported by companies comprising about 93% of total raw steel production. This contrasts with employment data shown on page 15 of the Financial Section which cover all operations of reporting companies.

Indexes on output per manhour in the iron and steel industry are those compiled by the United States Department of Labor, Bureau of Labor Statistics.

TABLE 3—EMPLOYMENT

(Covering the consolidated statements including all the affiliated interests of the parent companies rendering these reports)

	1980	1979 R	1978	1977	1976	1975	1974	1973	1972	1971
Labor: (All employees)										
Number of Employees:										
Average monthly number of employees receiving wages and salaries during the year:										
Wage employees	403,339	456,146	457,540	443,964	444,829	453,385	508,904	509,777	479,029	486,099
Salaried employees	165,619	163,966	167,706	165,099	162,347	163,273	165,968	161,026	159,231	165,963
Total Employees	568,958	620,112	625,246	609,063	607,176	616,658	674,872	670,803	638,260	652,062
Man Hours Actually Worked During the Year: (In millions)										
Wage employees	728.4	862.4	872.8	826.3	828.1	814.4	975.7	991.0	904.4	885.0
Salaried employees	334.7	325.7	337.2	333.0	328.4	332.9	339.1	329.3	320.8	334.1
Total Hours	1,063.1	1,188.1	1,210.0	1,159.3	1,156.5	1,147.3	1,314.8	1,320.3	1,225.2	1,219.1
Total Payroll: (In millions) †										
Wage employees	$ 9,569.2	$10,167.9	$ 9,160.8	$7,878.7	$7,168.5	$6,380.4	$6,855.2	$5,989.4	$5,064.8	$4,465.0
Salaried employees	4,683.4	4,359.6	3,937.9	3,498.0	3,229.5	3,018.3	2,858.5	2,440.8	2,215.9	2,089.9
Total Payroll	14,252.6	14,527.5	13,098.7	11,376.7	10,398.0	9,398.7	9,713.7	8,430.2	7,280.7	6,554.9
Less portion of payroll included above but charged to own construction or other non-operating accounts	174.1	130.6	122.7	157.9	175.7	165.9	133.7	117.8	102.9	100.5
Balance	$14,078.5	$14,396.9	12,976.0	11,218.8	$10,222.3	$9,232.8	$9,580.0	$8,312.4	$7,177.8	$6,454.4
Memo:										
Employment Data: (a)										
Number of employees in steel industry (avg. monthly) (b)	369,065	417,543	412,151	415,147	418,925	420,929	475,024	470,077	443,754	451,586
Man hours in the steel industry (In millions)	695.6	829.2	817.9	800.2	804.1	781.0	929.3	939.7	866.3	858.4
Wages and salaries in the steel industry (Millions of dollars)	$10,086.9	$10,567.2	$ 9,421.2	$8,473.3	$7,666.2	$6,834.6	$6,941.0	$6,238.6	$5,396.2	$4,791.4

(a) For steel activities of companies reporting in financial table 2. Does not represent the same universe as those included in the Employment Section.
(b) Adjusted to reflect turnover of employees.
"Employment Data" steel industry includes operation of coke ovens, blast furnaces, steelmaking furnaces and finishing mills, etc., and the sale of the products thereof, and "Other" includes mining and quarrying operations, transportation, warehousing, fabrication and other non-steel producing activities. For details of "steel" employment see table 6.
† Wage and salaried payroll includes payments applicable to the prior year.

TABLE 4—BALANCE SHEET, CAPITAL EXPENDITURES

(Covering the consolidated statements including all the affiliated interests of the parent companies rendering these reports)

(Millions of dollars)

ASSETS	1980	1979 [R]	1978	1977	1976	1975	1974	1973	1972	1971
Current Assets:										
Cash	$ 907.6	$ 896.8	$ 708.3	$551.8	$ 551.7	$ 532.8	$ 616.8	$ 578.5	$ 506.3	$ 561.8
United States Government securities including tax notes and other marketable securities	1,680.3	1,082.0	1,370.0	1,012.4	1,052.2	1,188.9	2,901.2	1,826.2	503.8	557.9
Receivables, less allowances for doubtful accounts	7,265.4	6,419.5	5,835.8	4,434.7	3,565.2	3,398.4	4,091.6	3,222.3	2,941.3	2,201.3
Inventories	6,651.0	6,909.1	6,480.1	5,898.2	6,408.5	5,390.8	4,394.1	3,728.7	4,105.8	3,932.1
Other Current Assets	272.8	160.7	186.2	443.0	251.0	239.5	208.8	156.5	148.7	170.8
Total Current Assets	16,777.1	15,468.1	14,580.4	12,340.1	11,828.6	10,750.4	12,212.5	9,512.2	8,210.9	7,423.9
Miscellaneous investments and other assets	3,121.9	2,873.0	3,009.0	2,867.0	2,613.1	2,457.5	2,112.3	1,894.7	1,995.7	1,790.6
Fixed Assets:										
Property, plant and equipment	45,859.0	43,790.2	42,280.3	41,406.7	39,879.2	37,145.0	34,500.3	33,593.7	32,609.2	31,858.6
Less—Depreciation, depletion and amortization	23,509.3	22,456.5	22,008.2	21,684.5	21,228.6	20,286.1	19,601.1	19,114.2	18,194.0	17,396.6
Net Fixed Assets	22,349.7	21,333.7	20,272.1	19,722.2	18,650.6	16,858.9	14,899.2	14,479.5	14,415.2	14,462.0
Intangibles	61.4	55.6	56.9	55.1	110.2	98.7	82.9	85.1	57.9	57.0
Deferred charges	538.4	458.9	441.2	432.6	361.5	274.4	199.5	161.2	157.3	156.7
TOTAL ASSETS	42,848.5	40,189.3	38,359.6	35,417.0	33,564.0	30,419.9	29,506.4	26,132.7	24,837.0	23,890.2
LIABILITIES AND STOCKHOLDERS' EQUITY										
Current Liabilities:										
Accrued taxes, including Federal income taxes	1,282.4	1,212.8	1,168.3	771.5	865.1	897.5	1,846.3	1,104.8	886.6	755.1
Long-term debt maturing within one year	286.4	351.3	287.8	300.6	232.7	209.4	255.6	186.2	232.0	270.2
All other current liabilities	8,240.4	7,621.0	6,825.0	5,687.8	5,016.7	4,204.3	4,627.6	3,674.0	3,222.1	2,886.3
Total Current Liabilities	9,809.2	9,185.1	8,281.1	6,759.9	6,114.5	5,311.2	6,729.5	4,965.0	4,340.7	3,911.6
Long-term debt less amount maturing within one year	9,376.1	8,717.0	8,763.0	7,958.9	6,966.5	5,705.3	4,651.2	4,962.9	5,229.6	5,144.4
Other long-term liabilities and reserves	3,946.9	3,653.6	3,047.9	2,786.8	2,420.8	2,184.9	1,867.3	1,641.5	1,574.8	1,530.0
Minority interest in companies not wholly owned	592.9	577.0	574.0	307.7	34.9	26.3	15.2	49.8	17.4	22.8
Stockholders' Equity:										
Preferred stock	97.9	105.5	212.6	231.6	106.8	108.2	111.3	114.6	117.4	118.6
Common stock	3,413.9	3,398.1	3,201.1	3,221.4	3,172.6	3,052.0	3,046.4	3,047.5	3,128.5	3,069.7
Capital surplus	1,604.9	1,450.3	1,629.3	1,416.9	1,396.6	1,352.6	1,292.1	1,270.7	1,243.3	1,273.1
Income reinvested in business	14,006.7	13,102.7	12,650.6	12,733.8	13,351.3	12,679.4	11,793.4	10,080.7	9,185.3	8,820.0
Total Stockholders' Equity (December 31)	19,123.4	18,056.6	17,693.6	17,603.7	18,027.3	17,192.2	16,243.2	14,513.5	13,674.5	13,281.4
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	42,848.5	40,189.3	38,359.6	35,417.0	33,564.0	30,419.9	29,506.4	26,132.7	24,837.0	23,890.2
Capital Expenditures	$ 3,319.1	$ 3,311.9	$ 2,595.2	$2,850.3	$ 3,252.9	$ 3,179.4	$ 2,114.7	$ 1,399.9	$ 1,174.3	$ 1,425.0
Estimated cost to complete construction in progress (In millions)	$ 3,388.3	...	...	...	...	...	...	...	...	...

TABLE 9—BLS INDEX OF OUTPUT PER MAN-HOUR IN THE STEEL INDUSTRY (ALL EMPLOYEES)

SOURCE: United States Department of Labor, Bureau of Labor Statistics

Year	1967=100
1957	84.3
1958	77.9
1959	87.5
1960	82.3
1961	84.9
1962	89.2
1963	93.2
1964	97.2
1965	101.1
1966	103.2
1967	100.0
1968	103.5
1969	104.0
1970	101.3
1971	106.3 R
1972	112.5 R
1973	123.3 R
1974	123.2 R
1975	107.8 R
1976	114.4 R
1977	115.6
1978	125.3 R
1979	123.8 R
1980	119.7 P
Average Annual Increase 1957–1980	1.9 *

* Based on least squares method.

NOTE: Although the output per man-hour data relate output to one input—labor time—they do not measure the specific contribution of labor, of capital, or of any other factor to production. In short, they do not reflect solely changes in the productiveness of labor. Rather, they reflect the joint effect of a number of interrelated influences such as changes in technology, capital investment per worker, utilization of capacity, layout and flow of material, skill of the work force, managerial skill, and labor-management relations. See Bureau of Labor Statistics Publication of November 1964 entitled *Indices of Output Per Manhour 1957–1963, Steel Industry* for further definition and method of development of this index. It should be also noted that industry shipments of finished steel products comprise the largest factor in the output sector of the equation. Shipments in a given year such as 1974 may be significantly affected by abnormal increases or decreases in producer's mill inventories of finished and/or semi-finished products.

SHIPMENTS—STEEL PRODUCTS

Products

Grades

Markets

Data in this section are expressed in terms of Gross Shipments and Net Shipments. Gross shipments represent the aggregate tonnage shipped by reporting companies including steel consumed by the companies in their own construction, maintenance, repair and operations, as well as in their own manufacture of fabricated products. Net shipments eliminate tonnage duplication by deducting from the gross total those shipments from one reporting company to another reporting company for conversion, further processing or resale.

TABLE 6—NUMBER OF EMPLOYEES, HOURS WORKED AND PAYROLL COST IN IRON AND STEEL INDUSTRY

(Covering only those employees engaged in the production and sale of iron and steel products as reported on AIS 1)

Year	Employees Receiving Wages				Employees Receiving Salaries				All Employees Receiving Wages and Salaries					Year
	Average Number of Employees †	Total Hours Worked (000)	Avg. Hrs. Worked Per Week Per Employee	Total Wages * (000)	Average Payroll Cost Per Hour	Average Number of Employees †	Total Hours Worked (000)	Total Salaries * (000)	Average Number of Employees †	Total Hours Worked (000)	Avg. Hrs. Worked Per Week Per Employee	Total Wages and Salaries * (000)	Average Payroll Cost Per Hour	
1980	291,483	544,220	35.7	$7,715,679	$14.177	107,346	213,575	$3,218,442	398,829	757,795	36.3	$10,934,121	$14.429	1980
1979	341,931	669,045	37.5	8,397,211	12.551	111,250	225,033	3,085,197	453,181	894,078	37.8	11,482,408	12.843	1979
1978	339,155	669,720	37.9	7,547,510	11.270	110,042	222,462	2,778,779	449,197	892,182	38.1	10,326,289	11.574	1978
1977	337,396	645,853	36.7	6,620,557	10.251	114,992	230,051	2,622,822	452,388	875,904	37.1	9,243,379	10.553	1977
1976	339,021	645,748	36.4	5,897,181	9.132	115,107	231,038	2,434,283	454,128	876,786	36.9	8,331,464	9.502	1976
1975	339,945	621,691	35.1	5,166,768	8.311	117,217	233,214	2,279,525	457,162	854,905	35.9	7,446,293	8.710	1975
1974	393,212	771,977	37.7	5,732,017	7.425	119,183	241,150	2,170,827	512,395	1,013,127	37.9	7,902,844	7.800	1974
1973	392,851	787,955	38.5	4,972,953	6.311	115,763	235,000	1,837,475	508,614	1,022,955	38.6	6,810,428	6.658	1973
1972	364,074	709,894	37.3	4,172,287	5.877	114,294	230,408	1,677,013	478,368	940,302	37.6	5,849,300	6.221	1972
1971	366,982	690,431	36.1	3,600,764	5.215	120,287	241,070	1,582,178	487,269	931,501	36.7	5,182,942	5.564	1971
1970	403,115	771,886	36.7	3,679,658	4.767	128,081	257,852	1,554,077	531,196	1,029,738	37.2	5,233,735	5.082	1970
1969	415,301	835,154	38.6	3,813,449	4.566	128,718	263,821	1,517,511	544,019	1,098,975	38.7	5,330,960	4.851	1969
1968	420,684	829,837	37.7	3,570,606	4.303	130,873	265,280	1,443,005	551,557	1,095,117	38.0	5,013,611	4.578	1968
1967	424,153	818,486	37.0	3,330,529	4.069	130,990	265,231	1,355,014	555,143	1,083,717	37.4	4,685,543	4.324	1967
1966	446,712	889,190	38.2	3,571,600	4.017	128,835	263,312	1,322,503	575,547	1,152,502	38.4	4,894,103	4.247	1966
1965	458,539	901,984	37.7	3,549,102	3.935	125,312	256,224	1,247,956	583,851	1,158,208	38.0	4,797,058	4.142	1965
1964	434,654	869,447	38.3	3,300,516	3.796	118,901	244,658	1,171,823	553,555	1,114,105	38.5	4,472,339	4.014	1964
1963	405,536	790,006	37.4	2,913,214	3.687	114,753	233,369	1,104,721	520,289	1,023,375	37.7	4,017,935	3.926	1963
1962	402,662	768,496	36.6	2,783,784	3.622	117,876	239,515	1,120,322	520,538	1,008,011	37.1	3,904,106	3.873	1962
1961	405,924	775,030	36.6	2,713,735	3.501	117,381	237,827	1,083,406	523,305	1,012,857	37.1	3,797,141	3.749	1961

† Average of the monthly number of employees receiving pay after adjustment for turnover.

* Does not include other employment costs such as F.I.C.A. taxes, unemployment compensation taxes, state disability taxes, supplemental unemployment benefits, savings and vacation plan benefits, pensions and insurance.

Data for 1977 exclude payroll and benefit costs related to individual company shutdown of facilities as disclosed separately in financial statements.

TABLE 7—TOTAL EMPLOYMENT COST PER HOUR—WAGE EMPLOYEES IN THE IRON AND STEEL INDUSTRY

(Covering only those employees engaged in the production of iron and steel products as reported on AIS 1)

Year	Pay for Hours Worked						Comparison	Other Payroll Costs						Year
	Straight Time					Subtotal								
	Regular (1)	Shift Differential (2)	Sunday Premium (3)	Overtime Premium (4)	Premium For Work On Holidays (5)	Pay For Hours Worked (6)	Average Hourly Earnings In Steel (BLS) (7)	Pay For Holidays Not Worked (8)	Vacation Pay (9)	Allowances and Adjustments (10)	Total Payroll Cost Per Hour (11)	Employee Benefits Cost Per Hour (12)	Total Employment Cost Per Hour (13)	
1980	$10.971	$.135	$.377	$.336	$.295	$12.114	$11.84	$.333	$1.574	$.156	$14.177	$4.274	$18.451	1980
1979	9.822	.121	.368	.427	.281	11.019	10.77	.247	1.230	.055	12.551	3.370	15.921	1979
1978	8.890	.120	.333	.391	.242	9.976	9.70	.194	1.051	.049	11.270	3.033	14.303	1978
1977	8.029	.117	.280	.294	.193	8.913	8.67	.200	1.015	.123	10.251	2.785	13.036	1977
1976	7.247	.115	.249	.239	.148	7.998	7.86	.177	.912	.045	9.132	2.612	11.744	1976
1975	6.634	.080	.218	.171	.124	7.227	7.11	.170	.874	.040	8.311	2.279	10.590	1975
1974	5.921	.062	.212	.235	.120	6.550	6.38	.114	.653	.108	7.425	1.653	9.078	1974
1973	5.159	.062	.135	.218	.114	5.688	5.56	.092	.507	.024	6.311	1.370	7.681	1973
1972	4.813	.060	.087	.161	.100	5.221	5.15	.101	.528	.027	5.877	1.198	7.075	1972
1971	4.242	.060	.075	.126	.071	4.574	4.57	.090	.519	.032	5.215	1.046	6.261	1971
1970	3.926	.054	.071	.118	.067	4.236	4.22	.077	.431	.023	4.767	.910	5.677	1970
1969	3.776	.050	.072	.154	.068	4.120	4.09	.053	.370	.023	4.566	.809	5.375	1969
1968	3.553	.049	.067	.126	.065	3.860	3.82	.049	.376	.018	4.303	.729	5.032	1968
1967	3.398	.048	.063	.091	.056	3.656	3.62	.056	.349	.008	4.069	.689	4.758	1967
1966	3.353	.049	.065	.110	.059	3.636	3.58	.049	.324	.008	4.017	.616	4.633	1966
1965	3.261	.049	.064	.106	.056	3.536	3.46	.048	.343	.008	3.935	.540	4.475	1965
1964	3.177	.049	.061	.090	.054	3.431	3.41	.048	.310	.007	3.796	.559	4.355	1964
1963	3.166	.047	.055	.069	.053	3.390	3.36	.050	.240	.007	3.687	.560	4.247	1963
1962	3.141	.046	.052	.052	.041	3.332	3.29	.058	.224	.008	3.622	.533	4.155	1962
1961	3.054	.045	.050	.048	.044	3.241	3.20	.055	.200	.005	3.501	.488	3.989	1961
Incr. 1980 vs. 1961	$7.917	$.090	$.327	$.288	$.251	$8.873	$8.64	$.278	$1.374	$.151	$10.676	$3.786	$14.462	Incr. 1980 vs. 1961
% Incr. 1980 vs. 1961	259%	200%	654%	600%	570%	274%	270%	505%	687%		305%	776%	363%	% Incr. 1980 vs. 1961

Data for 1977 and 1979 excludes payroll and benefit costs related to individual company shutdown of facilities as disclosed separately in financial statements.

Notes Pertaining to Table Above by Column Numbers

(1) Includes nonincentive bonus where applicable and Cost of Living Adjustment. The job class rate as established effective August 1, 1980 includes $3.70 Cost of Living Adjustment roll in. The Cost of Living Adjustment subsequent to August 1, 1980 reached a total at year end of 14¢ per hour worked as shown below.

Cost of Living Adjustment Per Hour Worked

	1972	*1973*	*1974*	*1975*	*1976*	*1977*	*1978*	*1979*	*1980*
Feb.	...	$.06	$.39	$.56	$.19	$.14	$.39	$.25	$.44
May	...	.13	.15	.64	.23	.13	.51	.47	...
Aug.	$.01	.21	.28	...	...	.25	...	...	...
Nov.	.03	.30	.44	.10	.08	.32	.13	.23	.14

(2) Shift differential was increased August 1, 1980 to 30¢ per hour middle shift and to 45¢ per hour night shift.

(7) BLS average hourly earnings for 1965 do not include the one-time payment made by most companies in late 1965 resulting from the Extension Agreement covering the period from May 1, 1965 through August 31, 1965 which provided for an employment cost accrual of 11.5¢ per hour worked.

(9) Includes regular vacation and company liability for vacation time-off and/or pay in lieu of SVP. Appropriate adjustments have been made beginning with the year 1963.

(10) Allowances include earnings protection plan payments, reporting allowance, allowance for participation in military and naval training programs, jury duty, witness pay, funeral leave, rate retention under consent decree and similar actions, severance pay, $150 bonus paid under the Experimental Negotiating Agreement with the Steelworkers Union and/or other unions, and retroactive payments.

(12) Savings and vacation plan benefits were (other than payroll portion) initiated July 1, 1962.

Standard Hourly Wage Rate Increases and Minimum Wage Rates in the Iron and Steel Industry (per Agreement with Steelworkers Union) 1956–1980**

Effective Date	Standard Hourly Wage Rate Increases Per Hour: Job Class 1 and 2	Standard Hourly Wage Rate Increases Per Hour: Increment/ Job Class	Standard Hourly Wage Rate Increases Per Hour: Avg. All Job Classes	Minimum Std. Hourly Wage Rate (Job Class 1 and 2)
August 3, 1956	$.075	$.003	$.095	$1.820
January 1, 1957	.030		.030	1.850
July 1, 1957	.110	.002	.122	1.960
January 1, 1958	.050	...	.050	2.010
July 1, 1958	.110	.002	.122	2.120
January 1, 1959	.010	...	.010	2.130
December 1, 1960	.070	.002	.083	2.200
October 1, 1961	.085	.001	.092	2.285
September 1, 1965	.100	.003	.121	2.385
August 1, 1967	.060	.002	.076	2.445
August 1, 1968	.200	.005	.236	2.645
August 1, 1969	.120	.003	.142	2.765
August 1, 1970	.120	.002	.135	2.885
August 1, 1971	.500	.005	.537	3.385
August 1, 1972	.125	.004	.154	3.510
August 1, 1973	.125	.004	.155	3.635
May 1, 1974	.670	.002	.685	4.305
August 1, 1975	.890	.003	.913	5.195
August 1, 1976	.480	.004	.511	5.675
May 1, 1977	.340	.004	.371	6.015
August 1, 1977	.200	...	.200	6.215
February 1, 1978	.100	...	.100	6.315
August 1, 1978	.800	.003	.823	7.115
February 1, 1979	.100	...	.100	7.215
August 1, 1979	.820	.003	.843	8.035
May 1, 1980	.690	.010	.770	8.725
August 1, 1980	.260*	...	.260	8.985

*See footnote (1) for explanation.

**Note: As of August 1, 1980, the hourly wage rate varies from a minimum (Job Class 1 and 2) of $8.985 to a maximum (Job Class 34) of $13.049 with an increment of 12.7¢ per hour between job classes.

TABLE 8—COLLECTIVE BARGAINING AGREEMENTS WITH UNITED STEELWORKERS UNION

Year	Effective Date of New Agreement	Periods of General Steel Strikes	Length (Calendar Days)
1946	Feb. 15, 1946	Jan. 21—Feb. 17	28
1947	Apr. 22, 1947	...	...
1948	July 16, 1948	...	...
1949	Nov. 11, 1949	Oct. 1—Nov. 11	42
1950	Nov. 30, 1950	...	...
1952	July 26, 1952	Apr. 29—May 2 June 2—July 26	3 55
1953	June 12, 1953	...	...
1954	July 1, 1954	...	...
1955	June 30, 1955	July 1	A Few Hours
1956	Aug. 3, 1956	July 1—Aug. 3	34
1960	Jan. 4, 1960	July 15—Nov. 7, 1959	116
1962	Apr. 6, 1962	...	...
1963	June 29, 1963	...	...
1965	Sept. 1, 1965	...	...
1968	Aug. 1, 1968	...	...
1971	Aug. 1, 1971	...	...
1974	Aug. 1, 1974	...	...
1977	Aug. 1, 1977	...	...
1980	Aug. 1, 1980	...	...

NOTE: Some companies have agreements with starting dates other than those listed above.

TABLE 10—OCCUPATIONAL INJURY/ILLNESS

(Reported by companies comprising 92-94% of total raw steel production)

	1980	1979	1978	1977
1. Aggregate number of man-hours (millions)	741	892	884	869
2. OSHA recordable injuries/illnesses:				
a. Fatalities	42	64	55	55
b. Lost workday cases	9,779	14,159	14,026	14,013
c. Other medical treatment cases	20,320	28,856	28,453	28,977
d. Total (2a through 2c)	30,141	43,079	42,534	43,045
3. Frequency rate (number of injuries/illnesses per 200,000 man-hours worked)	8.138	9.654	9.623	9.908
4. OSHA workdays lost (thousands)	246	323	311	309
5. Severity rate (days lost per 200,000 man-hours worked)	66	72	70	71

NOTE: Recordable injuries are reported as specified by the Bureau of Labor Statistics, U.S. Department of Labor pursuant to Section 24(a) of the Occupational Safety and Health Act of 1970.

TABLE 11—WAGE EMPLOYEES IN THE IRON AND STEEL INDUSTRY CLASSIFIED BY AGE AND BY LENGTH OF SERVICE

(Covering only those employees who were engaged in the production of iron and steel products as reported by companies representing 92% in 1978 and 1979 of the total basic wage employment as reported on AIS 1)

Years of Service	1979 No. of Employees*	1979 %	1978 No. of Employees*	1978 %	Years of Age	1979 No. of Employees*	1979 %	1978 Employees* No. of	1978 %
Under 5	69,335	20.8	73,713	22.0	Under 25	41,568	12.5	46,259	13.8
5 to 9	65,881	19.8	68,203	20.3	25 to 34	94,977	28.5	89,619	26.7
10 to 14	49,265	14.8	48,284	14.4	35 to 44	61,708	18.5	60,945	18.2
15 to 24	58,625	17.6	49,730	14.8	45 to 54	75,579	22.7	78,329	23.3
25 to 34	72,799	21.8	76,608	22.8	55 to 64	58,015	17.4	59,168	17.6
35 and over	17,498	5.2	19,149	5.7	65 and over	1,556	0.4	1,367	0.4
TOTAL	333,403	100.0	335,687	100.0	TOTAL	333,403	100.0	335,687	100.0
Average service	15.8		15.8		Average age	40.6		40.6	

* Employees at year end, including employees on layoff, disability, and leave of absence other than military. Excludes employees terminated or retired during the year. 1980 data was not available at the time this Report went to press.

TABLE 12—SHIPMENTS OF STEEL PRODUCTS—1980
ALL GRADES—(INCLUDING CARBON, ALLOY AND STAINLESS)

(Net tons)

Steel Products	Total Gross Shipments	Less Shipments to Reporting Companies	Total Net Shipments	Per Cent of Total Net Shipments
Ingots and steel castings	445,038	554	444,484	0.6
Blooms, slabs, billets, sheet bars	2,324,440	139,122	2,185,318	2.6
Skelp	95,482	71,896	23,586	...
Wire rods	2,978,972	290,733	2,688,239	3.2
Total Semi-Finished	5,843,932	502,305	5,341,627	6.4
Structural shapes (3" & over)	4,861,270	239	4,861,031	5.8
Steel piling	346,159	...	346,159	0.4
Plates	8,101,199	21,565	8,079,634	9.6
Total Shapes and Plates	13,308,628	21,804	13,286,824	15.8
Rails—Standard (over 60 lbs.)	1,084,635	...	1,084,635	1.3
—All other	53,353	156	53,197	0.1
Joint bars	16,530	...	16,530	...
Tie plates	205,130	...	205,130	0.2
Track spikes	85,145	1	85,144	0.1
Wheels (rolled and forged)	159,331	...	159,331	0.2
Axles	193,401	...	193,401	0.2
Total Rails and Accessories	1,797,525	157	1,797,368	2.1
Bars—Hot Rolled	6,719,209	758,592	5,960,617	7.1
—Bar-Size light shapes	955,668	5,708	949,960	1.1
—Reinforcing	4,743,140	59,642	4,683,498	5.6
—Cold finished	1,585,409	186	1,585,223	1.9
Tool steel	79,456	801	78,655	0.1
Total Bars and Tool Steel	14,082,882	824,929	13,257,953	15.8
Pipe and tubing—Standard	1,873,894	100,711	1,773,183	2.1
—Oil country goods	3,763,254	151,603	3,611,651	4.3
—Line	1,795,752	3,254	1,792,498	2.1
—Mechanical	1,182,137	22,733	1,159,404	1.4
—Pressure	155,346	6,209	149,137	0.2
—Structural	569,554	114	569,440	0.7
—Stainless	43,058	1,814	41,244	0.1
Total Pipe and Tubing	9,382,995	286,438	9,096,557	10.9
Wire—Drawn	1,411,272	19,517	1,391,755	1.7
—Nails and staples	173,424	385	173,039	0.2
—Barbed and twisted	69,751	...	69,751	0.1
—Woven wire fence	92,602	112	92,490	0.1
—Bale ties and baling wire	41,148	2	41,146	...
Total Wire and Wire Products	1,788,197	20,016	1,768,181	2.1
Black plate	507,372	3,289	504,083	0.6
Tin plate	4,166,296	...	4,166,296	5.0
Tin Free steel	977,580	...	977,580	1.1
Tin Mill products—All other	61,336	...	61,336	0.1
Total Tin Mill Products	5,712,584	3,289	5,709,295	6.8
Sheets—Hot rolled	13,181,281	1,065,420	12,115,861	14.5
—Cold rolled	13,352,044	39,361	13,312,683	15.9
Sheets & strip—Galvanized—Hot dipped	4,795,993	8,691	4,787,302	5.7
—Electrolytic	456,697	40	456,657	0.5
—All other metallic coated	722,119	71	722,048	0.9
—Electrical	601,247	223	601,024	0.7
Strip—Hot rolled	790,745	121,490	669,255	0.8
—Cold rolled	933,325	3,382	929,943	1.1
Total Sheets and Strip	34,833,451	1,238,678	33,594,773	40.1
TOTAL SHIPMENTS	86,750,194	2,897,616	83,852,578	100.0

TABLE 13—SHIPMENTS OF STEEL PRODUCTS—1980
ALL GRADES (INCLUDING CARBON, ALLOY AND STAINLESS)

(Net tons)

Steel Products	Carbon	%	Alloy	%	Stainless	%	Total	%
Ingots and steel castings	216,827	0.3	213,267	2.3	14,390	1.3	444,484	0.6
Blooms, slabs, billets, sheet bars	1,621,913	2.2	520,269	5.6	43,136	3.8	2,185,318	2.6
Skelp	23,586	...	...	...	...	...	23,586	...
Wire rods	2,621,511	3.6	30,583	0.3	36,145	3.2	2,688,239	3.2
Total Semi-Finished	4,483,837	6.1	764,119	8.2	93,671	8.3	5,341,627	6.4
Structural shapes (3" & over)	4,121,319	5.6	739,712	7.9	...	...	4,861,031	5.8
Steel piling	314,796	0.4	31,363	0.3	...	...	346,159	0.4
Plates	6,242,106	8.5	1,713,584	18.3	123,944	11.0	8,079,634	9.6
Total Shapes and Plates	10,678,221	14.5	2,484,659	26.5	123,944	11.0	13,286,824	15.8
Rails:								
Standard (over 60 lbs.)	1,050,380	1.4	34,255	0.4	...	...	1,084,635	1.3
All other	53,197	0.1	...	...	...	...	53,197	0.1
Joint bars	16,530	...	...	...	...	...	16,530	...
Tie plates	205,130	0.3	...	...	...	...	205,130	0.2
Track spikes	85,144	0.1	...	...	...	...	85,144	0.1
Wheels (rolled and forged)	154,939	0.2	4,392	...	...	...	159,331	0.2
Axles	193,401	0.3	...	...	...	...	193,401	0.2
Total Rails and Accessories	1,758,721	2.4	38,647	0.4	...	...	1,797,368	2.1
Bars:								
Hot rolled	4,023,259	5.5	1,889,989	20.2	47,369	4.2	5,960,617	7.1
Bar-Size light shapes	949,960	1.3	(Included in Hot Rolled Bars)				949,960	1.1
Reinforcing	4,648,970	6.3	34,528	0.4	...	...	4,683,498	5.6
Cold finished	1,253,485	1.7	235,064	2.5	96,674	8.6	1,585,223	1.9
Tool steel	...	...	78,655	0.8	...	...	78,655	0.1
Total Bars and Tool Steel	10,875,674	14.8	2,238,236	23.9	144,043	12.8	13,257,953	15.8
Pipe and tubing:								
Standard	1,764,749	2.4	8,434	0.1	...	...	1,773,183	2.1
Oil country goods	2,568,185	3.5	1,043,466	11.1	...	...	3,611,651	4.3
Line	1,500,983	2.0	291,515	3.1	...	...	1,792,498	2.1
Mechanical	740,117	1.0	419,287	4.5	...	...	1,159,404	1.4
Pressure	110,998	0.2	38,139	0.4	...	...	149,137	0.2
Structural	568,389	0.8	1,051	...	...	...	569,440	0.7
Stainless	...	...	...	...	41,244	3.7	41,244	0.1
Total Pipe and Tubing	7,253,421	9.9	1,801,892	19.2	41,244	3.7	9,096,557	10.9
Wire:								
Drawn	1,354,206	1.9	13,799	0.2	23,750	2.1	1,391,755	1.7
Nails and staples	173,039	0.2	...	...	...	...	173,039	0.2
Barbed and twisted	69,751	0.1	...	...	...	...	69,751	0.1
Woven wire fence	92,490	0.1	...	...	...	...	92,490	0.1
Bale ties and baling wire	41,146	0.1	...	...	...	...	41,146	...
Total Wire and Wire Products	1,730,632	2.4	13,799	0.2	23,750	2.1	1,768,181	2.1
Black plate	504,083	0.7	...	...	...	...	504,083	0.6
Tin plate	4,166,296	5.7	...	...	...	...	4,166,296	5.0
Tin Free Steel	977,580	1.3	...	...	...	...	977,580	1.1
All other T.M.P.	61,336	0.1	...	...	...	...	61,336	0.1
Total Tin Mill Products	5,709,295	7.8	...	...	...	...	5,709,295	6.8
Sheets:								
Hot rolled	10,870,271	14.8	1,217,611	13.0	27,979	2.5	12,115,861	14.5
Cold rolled	12,744,609	17.4	116,408	1.2	451,666	40.0	13,312,683	15.9
Sheets and strip:								
Galvanized:								
Hot dipped	4,710,051	6.4	77,251	0.8	...	...	4,787,302	5.7
Electrolytic	456,657	0.6	...	...	...	...	456,657	0.5
All other metallic coated	721,989	1.0	59	...	...	...	722,048	0.9
Electrical	114,701	0.2	486,323	5.2	...	...	601,024	0.7
Strip:								
Hot rolled	584,155	0.8	77,190	0.8	7,910	0.7	669,255	0.8
Cold rolled	665,634	0.9	51,468	0.6	212,841	18.9	929,943	1.1
Total Sheets and Strip	30,868,067	42.1	2,026,310	21.6	700,396	62.1	33,594,773	40.1
TOTAL NET SHIPMENTS	73,357,868	100.0	9,367,662	100.0	1,127,048	100.0	83,852,578	100.0
Shipments to reporting companies	2,550,684	...	321,130	...	25,802	...	2,897,616	...
TOTAL GROSS SHIPMENTS	75,908,552	...	9,688,792	...	1,152,850	...	86,750,194	...

TABLE 14—NET SHIPMEN
ALL GRADES (INCLUDING CARBO

(Thousan

Steel Products	1980 Ship-ments	%	1979 Ship-ments	%	1978 Ship-ments	%	1977 Ship-ments	%
Ingots and steel castings	445	0.6	504	0.5	516	0.5	423	
Blooms, slabs, billets, sheet bars	2,185	2.6	2,095	2.1	1,969	2.0	1,736	
Skelp	24	...	35	...	31	0.1	31	
Wire rods	2,688	3.2	2,861	2.9	2,554	2.6	1,804	
Structural shapes (3" & over)	4,861	5.8	5,303	5.3	4,667	4.7	4,035	
Steel piling	346	0.4	293	0.3	360	0.4	347	
Plates	8,080	9.6	9,035	9.0	8,601	8.8	7,529	
Rails—Standard (over 60 lbs.)	1,085	1.3	1,122	1.1	946	1.0	1,109	
—All other	53	0.1	48	0.1	38	...	37	
Joint bars	17	...	19	...	14	...	17	
Tie plates	205	0.2	337	0.3	255	0.2	264	
Track spikes	85	0.1	101	0.1	97	0.1	103	
Wheels (rolled and forged)	159	0.2	180	0.2	165	0.2	189	
Axles	193	0.2	218	0.2	188	0.2	144	
Bars—Hot rolled	5,961	7.1	8,493	8.5	8,758	9.0	8,369	
—Bar-Size light shapes	950	1.1	1,466	1.5	1,277	1.3	993	
—Reinforcing	4,684	5.6	5,303	5.3	4,704	4.8	4,179	
—Cold finished	1,585	1.9	2,245	2.2	2,084	2.1	1,794	
Tool steel	79	0.1	95	0.1	92	0.1	85	
Pipe and tubing—Standard	1,773	2.1	1,952	1.9	2,054	2.1	1,853	
—Oil country goods	3,612	4.3	2,458	2.5	2,647	2.7	2,405	
—Line	1,793	2.1	1,569	1.6	1,571	1.6	1,330	
—Mechanical	1,159	1.4	1,507	1.5	1,480	1.5	1,362	
—Pressure	149	0.2	170	0.2	184	0.2	218	
—Structural	569	0.7	541	0.5	423	0.4	290	
—Stainless	41	0.1	46	...	40	0.1	32	
Wire—Drawn	1,392	1.7	1,918	1.9	1,968	2.0	1,894	
—Nails and staples	173	0.2	257	0.2	289	0.3	278	
—Barbed and twisted	70	0.1	67	0.1	58	0.1	55	
—Woven wire fence	92	0.1	122	0.1	109	0.1	113	
—Bale ties and baling wire	41	...	85	0.1	87	0.1	60	
Black plate	504	0.6	629	0.6	623	0.6	636	
Tin plate	4,166	5.0	4,604	4.6	4,489	4.6	4,700	
Tin Free Steel	978	1.1	1,003	1.0	918	0.9	974	
Tin Mill products—All other	61	0.1	75	0.1	70	0.1	72	
Sheets—Hot rolled	12,116	14.5	15,995	16.0	15,447	15.8	14,558	1
—Cold rolled	13,313	15.9	17,284	17.2	17,821	18.2	17,684	1
Sheets and strip—Galvanized—Hot dipped	4,787	5.7	5,810	5.8	5,889	6.0	5,293	
—Electrolytic	457	0.5	531	0.5	541	0.6	364	
—All other metallic coated	722	0.9	975	1.0	997	1.0	923	
—Electrical	601	0.7	697	0.7	639	0.6	597	
Strip—Hot rolled	669	0.8	984	1.0	1,027	1.0	1,082	
—Cold rolled	930	1.1	1,230	1.2	1,248	1.3	1,186	
TOTAL STEEL PRODUCTS	83,853	100.0	100,262	100.0	97,935	100.0	91,147	10
Carbon	73,358	87.5	87,879	87.6	86,187	88.0	81,268	8
Stainless and heat resisting	1,127	1.3	1,361	1.4	1,191	1.2	1,118	
Alloy (other than stainless)	9,368	11.2	11,022	11.0	10,557	10.8	8,761	

BEST AVAILABLE COPY

OF STEEL PRODUCTS
ALLOY AND STAINLESS STEEL)

of net tons)

1976		1975		1974		1973		1972		1971	
Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%
488	0.6	559	0.7	684	0.6	614	0.6	413	0.5	412	0.5
1,967	2.2	2,020	2.5	2,937	2.7	3,095	2.8	2,580	2.8	2,942	3.4
28	...	34	0.1	27	...	...	...	6		21	
1,901	2.1	1,298	1.6	1,861	1.7	2,040	1.8	1,919	2.1	1,587	1.8
3,857	4.3	4,697	5.9	6,548	6.0	6,556	5.9	5,237	5.7	5,222	6.0
330	0.4	424	0.5	662	0.6	525	0.5	419	0.5	445	0.5
7,160	8.0	8,761	11.0	10,919	10.0	9,678	8.7	7,553	8.2	7,939	9.1
1,303	1.5	1,179	1.5	924	0.8	916	0.8	921	1.0	879	1.0
37		70	0.1	66	0.1	51	...	36		40	
19	...	29		30		21	...	18		20	
250	0.3	222	0.3	269	0.2	216	0.2	199	0.2	179	0.2
105	0.1	88	0.1	88	0.1	86	0.1	84	0.1	77	0.1
175	0.2	216	0.2	221	0.2	240	0.2	212	0.2	223	0.3
128	0.2	161	0.2	187	0.2	159	0.1	131	0.2	146	0.2
7,822	8.8	7,410	9.3	10,080	9.2	9,729	8.7	8,550	9.3	7,561	8.7
842	0.9	736	0.9	982	0.9	1,034	0.9	750	0.8	618	0.7
3,876	4.3	3,666	4.6	5,089	4.6	5,135	4.6	4,454	4.9	4,521	5.2
1,618	1.8	1,486	1.8	2,250	2.1	2,161	1.9	1,675	1.8	1,378	1.6
76	0.1	69	0.1	113	0.1	111	0.1	90	0.1	78	0.1
1,782	2.0	2,096	2.6	2,918	2.6	2,979	2.7	2,443	2.7	2,441	2.8
1,678	1.9	2,577	3.2	2,262	2.1	1,736	1.6	1,277	1.4	1,404	1.6
1,019	1.1	1,721	2.2	2,373	2.2	2,008	1.8	1,943	2.1	1,998	2.3
1,260	1.4	1,202	1.5	1,503	1.4	1,585	1.4	1,219	1.3	1,037	1.2
197	0.2	332	0.4	324	0.3	241	0.2	185	0.2	199	0.2
298	0.3	258	0.3	411	0.4	548	0.5	513	0.6	470	0.6
31	0.1	42	0.1	53	...	36	...	29	...	27	
1,921	2.1	1,625	2.0	2,527	2.3	2,559	2.3	2,270	2.5	2,132	2.5
281	0.3	265	0.3	332	0.3	362	0.3	355	0.4	340	0.4
71	0.1	81	0.1	68	0.1	90	0.1	100	0.1	98	0.1
134	0.1	124	0.2	128	0.1	134	0.1	125	0.1	117	0.1
54	0.1	59	0.1	117	0.1	100	0.1	102	0.1	104	0.1
614	0.7	486	0.6	701	0.6	694	0.6	605	0.6	659	0.7
4,784	5.3	4,151	5.2	5,549	5.1	5,288	4.7	4,464	4.9	5,121	5.9
967	1.1	1,000	1.2	1,211	1.1	1,243	1.1	988	1.1	953	1.1
71	0.1	50	0.1	67	0.1	91	0.1	78	0.1	77	0.1
15,090	16.9	11,222	14.1	15,774	14.4	16,885	15.2	14,036	15.3	11,760	13.5
18,265	20.4	12,841	16.1	18,275	16.7	20,377	18.3	16,123	17.6	14,898	17.1
4,914	5.5	3,537	4.4	5,772	5.3	6,515	5.9	5,196	5.6	4,742	5.5
265	0.3	183	0.2	333	0.3	371	0.3	321	0.3	325	0.4
844	0.9	555	0.7	998	0.9	947	0.9	691	0.7	621	0.7
577	0.7	563	0.7	859	0.8	862	0.8	709	0.8	640	0.7
1,196	1.3	961	1.2	1,405	1.3	1,869	1.7	1,533	1.7	1,436	1.7
1,152	1.3	901	1.1	1,575	1.4	1,543	1.4	1,253	1.4	1,151	1.3
89,447	100.0	79,957	100.0	109,472	100.0	111,430	100.0	91,805	100.0	87,038	100.0
80,320	89.8	70,764	88.5	97,948	89.5	100,924	90.6	83,173	90.6	79,306	91.1
1,019	1.1	757	0.9	1,345	1.2	1,134	1.0	855	0.9	718	0.8
8,108	9.1	8,436	10.6	10,179	9.3	9,372	8.4	7,777	8.5	7,014	8.1

TABLE 15—NET SHIPMENTS OF STEEL ALL GRADES (INCLUDING CARBON,

(Thousands

Market Classifications	1980 Ship-ments	1980 %	1979 Ship-ments	1979 %	1978 Ship-ments	1978 %	1977 Ship-ments	1977 %
Steel for converting and processing	4,117	4.9	5,058	5.0	4,612	4.7	3,679	4.0
Independent forgers (not elsewhere classified)	933	1.1	1,254	1.3	1,192	1.2	998	1.1
Industrial fasteners	590	0.7	934	0.9	870	0.9	848	0.9
Steel service centers & distributors	16,172	19.3	18,246	18.2	17,333	17.7	15,346	16.8
Construction, including maintenance	8,742	10.4	9,978	10.0	9,612	9.8	7,553	8.3
Contractors' products	3,148	3.8	3,745	3.7	3,480	3.6	4,500	4.9
Subtotal construction and contractors' products	11,890	14.2	13,723	13.7	13,092	13.4	12,053	13.2
Automotive:								
Vehicles, parts, etc.	11,855	14.2	18,099	18.0	20,651	21.1	20,882	22.9
Independent forgers	269	0.3	522	0.5	602	0.6	608	0.7
Total	12,124	14.5	18,621	18.5	21,253	21.7	21,490	23.6
Rail transportation:								
Freight cars, pass. cars & locomotives	1,884	2.3	2,445	2.4	2,188	2.2	1,709	1.9
Rails and all other	1,271	1.5	1,666	1.7	1,361	1.4	1,529	1.7
Total	3,155	3.8	4,111	4.1	3,549	3.6	3,238	3.6
Shipbuilding and marine equipment	1,201	1.4	924	0.9	845	0.9	869	1.0
Aircraft and aerospace	53	0.1	60	0.1	60	0.1	63	0.1
Oil and gas industry	5,371	6.4	3,739	3.7	4,140	4.3	3,650	4.0
Mining, quarrying and lumbering	454	0.5	569	0.6	508	0.5	486	0.5
Agricultural:								
Agricultural machinery	852	1.0	1,306	1.3	1,080	1.1	1,017	1.1
All other	388	0.5	665	0.7	725	0.7	631	0.7
Total	1,240	1.5	1,971	2.0	1,805	1.8	1,648	1.8
Machinery, industrial equipment & tools	4,543	5.4	5,996	6.0	5,992	6.1	5,566	6.1
Electrical equipment	2,441	2.9	2,819	2.8	2,811	2.9	2,639	2.9
Appliances, utensils and cutlery	1,725	2.1	2,140	2.1	2,094	2.1	2,129	2.3
Other domestic & commercial equipment	1,701	2.0	2,073	2.1	1,889	1.9	1,846	2.0
Containers, packaging & shipping materials:								
Cans and closures	4,163	5.0	4,994	4.9	4,950	4.9	5,173	5.7
Barrels, drums and shipping pails	725	0.9	939	1.0	809	0.9	768	0.8
All other	663	0.7	839	0.9	836	0.9	773	0.9
Total	5,551	6.6	6,772	6.8	6,595	6.7	6,714	7.4
Ordnance and other military	177	0.2	204	0.2	207	0.2	193	0.2
Export (reporting companies only)	2,595	3.1	2,007	2.0	1,224	1.3	1,076	1.2
Nonclassified shipments	7,820	9.3	9,041	9.0	7,864	8.0	6,616	7.3
TOTAL SHIPMENTS	83,853	100.0	100,262	100.0	97,935	100.0	91,147	100.0

PRODUCTS BY MARKET CLASSIFICATIONS
ALLOY AND STAINLESS STEEL)

f net tons)

1976		1975		1974		1973		1972		1971	
Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%	Shipments	%
4,036	4.5	3,255	4.1	4,486	4.1	4,714	4.2	4,199	4.6	3,593	4.1
952	1.1	1,098	1.4	1,339	1.2	1,213	1.1	1,007	1.1	1,018	1.2
912	1.0	675	0.8	1,331	1.2	1,278	1.1	1,030	1.1	956	1.1
14,615	16.3	12,700	15.9	20,400	18.6	20,383	18.3	16,797	18.3	14,424	16.6
7,508	8.4	8,119	10.2	11,360	10.4	10,731	9.6	8,589	9.4	8,666	10.0
4,502	5.0	3,927	4.9	6,249	5.7	6,459	5.8	5,055	5.5	4,946	5.6
12,010	13.4	12,046	15.1	17,609	16.1	17,190	15.4	13,644	14.9	13,612	15.6
20,667	23.1	14,750	18.4	18,256	16.7	22,468	20.2	17,639	19.2	16,980	19.5
684	0.8	464	0.6	672	0.6	749	0.6	578	0.6	503	0.6
21,351	23.9	15,214	19.0	18,928	17.3	23,217	20.8	18,217	19.8	17,483	20.1
1,469	1.6	1,836	2.3	2,132	1.9	1,997	1.8	1,511	1.6	1,855	2.1
1,587	1.8	1,316	1.6	1,285	1.2	1,231	1.1	1,219	1.3	1,149	1.3
3,056	3.4	3,152	3.9	3,417	3.1	3,228	2.9	2,730	2.9	3,004	3.4
969	1.1	1,413	1.8	1,339	1.2	1,019	0.9	872	1.0	1,161	1.3
59	0.1	69	0.1	79	0.1	69	0.1	63	0.1	53	0.1
2,653	3.0	4,171	5.2	4,210	3.9	3,405	3.1	2,789	3.0	2,892	3.3
536	0.6	596	0.7	644	0.6	534	0.5	502	0.5	478	0.5
1,209	1.4	1,055	1.3	1,236	1.1	1,155	1.0	962	1.1	788	0.9
575	0.6	374	0.5	623	0.6	617	0.6	477	0.5	342	0.4
1,784	2.0	1,429	1.8	1,859	1.7	1,772	1.6	1,439	1.6	1,130	1.3
5,180	5.8	5,173	6.5	6,440	5.9	6,351	5.7	5,396	5.9	4,903	5.6
2,671	3.0	2,173	2.7	3,242	3.0	3,348	3.0	2,824	3.1	2,593	3.0
1,950	2.2	1,653	2.1	2,412	2.2	2,747	2.5	2,362	2.6	2,148	2.5
1,813	2.0	1,390	1.7	1,941	1.8	1,990	1.8	1,816	2.0	1,720	2.0
5,301	5.9	4,859	6.0	6,349	5.8	6,070	5.5	5,128	5.6	5,808	6.7
859	1.0	601	0.8	1,026	0.9	910	0.8	748	0.8	732	0.8
754	0.8	593	0.8	843	0.8	831	0.7	740	0.8	672	0.8
6,914	7.7	6,053	7.6	8,218	7.5	7,811	7.0	6,616	7.2	7,212	8.3
219	0.2	405	0.5	654	0.6	918	0.8	899	0.9	861	1.0
1,839	2.1	1,755	2.2	3,961	3.6	3,138	2.8	2,555	2.8	2,433	2.8
5,928	6.6	5,537	6.9	6,963	6.3	7,105	6.4	6,048	6.6	5,364	6.2
89,447	100.0	79,957	100.0	109,472	100.0	111,430	100.0	91,805	100.0	87,038	100.0

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SEE FOLDOUT NO 1

EXPORTS AND IMPORTS

The following tables, compiled from Department of Commerce report on Foreign Commerce and Navigation of the United States, give an analysis of the tonnage of iron and steel products exported and imported during the period 1976-1980. Exports and imports of iron and steel products not stated by weight in the reports are necessarily omitted.

Exports
-Products
-Monthly Data
-Countries of Destination
-Imports
-Products
-Monthly Data
-Countries of Origin
-Customs Districts

TABLE 17—EXPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1980 P	1979	1978	1977	1976
Steel Mill Products:					
Ingots, blooms, billets, slabs, etc.	912,309	357,965	231,098	248,422	261,647
Wire rods	212,347	26,903	38,863	83,934	100,033
Structural shapes (3" & over)	151,077	139,062	124,445	96,551	97,507
Sheet piling	2,677	6,822	2,830	1,651	2,203
Plates	207,840	207,860	172,068	60,660	76,627
Rails—Standard	49,046	18,969	33,249	17,051	61,893
—Iron or Steel n.e.c.	71,346	10,495	21,687	46,195	83,156
Rail joints and tie plates	9,620	8,686	13,081	20,245	17,296
Track spikes	†	†	†	1,970	1,455
Wheels and axles	4,517	2,496	8,573	4,537	3,393
Concrete reinforcing bars	166,168	86,281	111,346	75,968	90,799
Bar shapes under 3"	25,237	18,235	18,648	8,182	22,045
Bars—Hot rolled—Carbon	80,914	68,489	42,346	62,388	83,254
—Alloy	126,466	45,837	64,849	39,076	56,687
Cold finished bars	27,647	29,071	31,448	35,768	24,212
Tool steel	3,392	4,461	5,133	8,609	5,590
Hollow Drill Steel	4,244	7,870	8,539	NA	NA
Pipe—Black	†	†	†	58,063	98,073
—Galvanized	†	†	†	9,653	12,770
—Line	41,294	86,606	84,980	30,303	51,104
—Standard	118,163	154,550	117,075	NA	NA
Oil country goods	133,610	284,621	155,337	139,753	168,837
Tubing—Pressure	29,608	24,564	26,303	31,340	25,493
—Mechanical	42,241	57,220	78,981	48,193	49,244
—Structural	4,444	11,426	9,262	NA	NA
Other pipe and tubing	100,790	109,428	90,060	89,904	88,164
Wire—Alloy and Stainless	†	†	†	4,459	3,771
—Coated or uncoated	9,451	10,674	12,906	NA	NA
—Carbon	27,101	21,335	24,538	41,016	42,163
—Barbed, Iron or Steel	6,091	2,813	1,057	1,347	3,037
—Fencing	†	†	†	4,650	4,763
—Nails and staples	11,596	10,320	23,910	12,848	13,671
Black plate	179,458	125,548	79,199	23,544	28,025
Tin plate	692,100	420,711	348,947	325,418	367,596
Circles, cobbles and butts	†	†	†	23,564	16,844
Terne plate & terne coated	14,924	19,694	25,317	1,974	524
Sheets—Hot rolled	211,291	100,525	98,681	49,147	150,911
—Cold rolled	129,341	115,652	121,649	104,768	158,552
—Enameling	†	†	†	626	3,203
Sheets & strip—Galv. & other coated	193,133	130,131	129,507	101,550	124,160
—Electrical	†	†	†	11,097	11,457
—Silicon alloy	18,563	30,798	15,192	NA	NA
Strip—Hot rolled	40,760	15,603	13,541	33,329	199,261
—Cold rolled	41,877	46,214	37,043	45,348	44,586
Total Steel Mill Products	4,100,683	2,817,935	2,421,688	2,003,101	2,654,006
Carbon	3,060,413	2,284,300	1,881,062	1,708,396	2,242,655
Alloy	907,906	447,925	469,054	224,581	337,175
Stainless	132,364	85,710	71,572	70,124	74,176

TABLE 17—EXPORTS OF IRON AND STEEL PRODUCTS (Continued)

(Net tons)

Products	1980 P	1979	1978	1977	1976
Other Steel Products:					
Plates—Fabricated	10,282	6,201	10,960	30,982	30,667
Structural shapes—Fabricated	175,038	121,296	119,557	126,829	149,598
Sashes and frames	12,471	10,237	11,116	14,804	15,104
Relaying rails	†	†	†	31,945	18,472
Rails-used	85,592	70,224	50,428	NA	NA
Railway track material	4,502	4,770	5,593	14,108	5,878
Bolts, nuts	56,123	95,094	101,814	124,636	113,213
Architectural & ornamental work, n.e.c.	10,405	4,157	5,821	11,093	7,983
Welding electrodes	†	†	†	8,047	10,460
Wire cable, rope, strand & cordage	17,222	14,292	14,621	16,672	18,493
Fabricated wire products	11,750	11,854	14,034	4,418	6,591
Wire springs	13,799	16,386	†	44,208	43,935
Welded wire mesh	14,691	6,870	9,370	NA	NA
Containers	†	†	†	1,899	5,470
Sheets—Fabricated	18,477	16,161	20,248	16,619	29,872
Steel castings	†	†	†	23,005	29,500
Cast steel rolls	4,263	3,432	3,669	NA	NA
Forgings	47,416	56,013	55,122	45,421	50,726
Chains and parts	11,405	10,072	10,786	11,158	11,755
Rigid conduit	†	†	†	17,206	17,785
Pipe & tube fittings	68,109	56,640	79,480	32,531	38,217
Total Other Steel Products	561,545	503,699	512,619	575,581	603,719
Total Steel Products	4,662,228	3,321,634	2,934,307	2,578,682	3,257,725
Iron Products and Ferroalloys:					
Chilled iron railway car wheels	†	†	†	749	727
Cast iron pressure pipe	28,020	24,363	51,673	43,631	23,763
Cast iron soil pipe	20,234	9,790	34,222	18,836	32,693
Cast iron fittings not malleable	25,821	16,878	15,301	32,331	34,545
Cast iron fittings malleable	8,768	9,615	10,700		
Iron castings	134,717	141,193	320,238	411,502	408,313
Pig iron	72,923	105,116	51,116	51,357	57,480
Sponge iron, iron or steel powders	26,167	20,566	16,063	NA	NA
Ferroalloys	128,460	113,163	65,664	80,912	49,570
Total Iron Products & Ferroalloys	445,110	440,684	564,977	639,318	607,091
GRAND TOTAL	5,107,338	3,762,318	3,499,284	3,218,000	3,864,816
Iron and steel scrap	11,168,014	11,053,877	9,037,921	6,174,813	8,120,394

† Not reported separately as of Jan. 1, 1978.

TABLE 18—EXPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1980 P	1979	1978	1977	1976	1975	1974	1973	1972	1971
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	912,309	357,965	231,098	248,422	261,647	324,942	807,418	550,728	418,203	875,839
Wire rods	212,347	26,903	38,863	83,934	100,033	40,617	65,851	89,781	122,895	62,842
Structural shapes and piling	153,754	145,884	127,275	98,202	99,710	186,118	367,079	260,820	111,414	146,403
Plates	207,840	207,860	172,068	60,660	76,627	233,499	426,987	291,444	74,943	82,854
Rails and accessories	134,529	40,646	76,590	89,998	167,193	198,948	130,453	110,611	116,098	71,669
Bars and tool steel	434,068	260,244	282,309	229,991	282,587	264,021	753,747	402,846	202,628	187,857
Pipe and tubing	470,150	728,415	561,998	407,209	493,685	1,013,764	870,200	572,094	408,228	318,345
Wire and wire products	54,239	45,142	62,411	64,320	67,405	49,782	75,804	52,683	39,307	35,267
Tin mill products	886,482	565,953	453,463	374,500	412,989	271,721	577,983	516,344	338,200	303,405
Sheets and strip	634,965	438,923	415,613	345,865	692,130	369,712	1,757,626	1,205,100	1,040,771	742,896
Total Steel Mill Products	4,100,683	2,817,935	2,421,688	2,003,101	2,654,006	2,953,124	5,833,148	4,052,451	2,872,687	2,827,377
Other Steel Products	561,545	503,699	512,619	575,581	603,719	618,152	688,449	496,113	328,075	327,754
Total Steel Products	4,662,228	3,321,634	2,934,307	2,578,682	3,257,725	3,571,276	6,521,597	4,548,564	3,200,762	3,155,131
Iron Products and Ferroalloys	445,110	440,684	564,977	639,318	607,091	575,074	610,737	511,006	404,814	391,787
GRAND TOTAL	5,107,338	3,762,318	3,499,284	3,218,000	3,864,816	4,146,350	7,132,334	5,059,570	3,605,576	3,546,918

Similar data not available prior to 1933.

TABLE 19—EXPORTS OF STEEL MILL PRODUCTS

(Net tons)

Months	1980 P	1979	1978	1977	1976	1975	1974	1973	1972	1971
January	197,768	192,619	160,338	162,280	150,444	288,760	454,844	288,253	208,019	258,270
February	295,675	164,693	207,583	204,787	177,031	257,148	448,208	220,684	221,246	198,873
March	276,266	216,844	191,463	201,535	211,534	282,109	502,733	323,203	260,825	185,680
April	321,393	226,446	204,708	232,818	228,524	269,788	533,431	339,546	198,514	188,761
May	337,821	236,756	255,466	178,011	264,744	268,019	626,899	371,734	244,566	182,606
June	417,941	255,187	270,996	151,195	231,947	255,744	632,630	322,572	210,519	248,866
July	398,417	233,706	174,335	135,753	318,432	263,851	646,764	342,804	219,613	297,547
August	448,915	249,507	208,456	142,849	280,176	270,695	488,249	323,802	301,073	163,813
September	400,518	244,488	174,305	170,806	193,296	202,239	345,801	281,001	304,478	285,914
October	366,179	281,453	217,741	125,386	183,082	228,181	386,800	373,806	251,774	171,941
November	315,875	226,700	194,487	148,396	186,043	184,907	296,421	388,073	207,399	247,622
December	323,827	289,312	248,453	149,161	228,276	181,659	470,236	473,242	244,610	396,836
TOTAL *	4,100,683	2,817,935	2,421,688	2,003,101	2,654,006	2,953,124	5,833,148	4,052,451	2,872,687	2,827,377

* Revised totals include adjustments not shown in monthly figures.

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SEE FOLDOUT NO 2

TABLE 21—IMPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1980 P	1979	1978	1977	1976
Steel Mill Products:					
Ingots, blooms, slabs, and billets, etc.	155,343	344,693	413,899	297,711	240,110
Wire rods	829,259	985,414	1,326,580	1,341,575	1,120,744
Structural shapes (plain 3" and over)	1,739,543	1,881,967	1,798,963	1,743,228	1,361,365
Sheet piling	89,423	102,815	128,004	73,959	63,086
Plates	2,059,713	1,819,812	2,924,989	2,116,459	1,596,429
Rails and track accessories	271,172	213,676	189,159	149,960	81,470
Wheels and axles	142,904	99,547	96,726	57,231	32,197
Concrete reinforcing bars	78,639	116,955	109,956	92,602	192,165
Bar shapes under 3"	136,947	231,614	239,744	263,177	164,347
Bars—Hot rolled—Carbon	366,663	452,435	597,828	704,298	384,228
—Alloy	129,144	153,887	182,796	145,025	93,248
—Cold finished	146,782	170,501	204,489	156,066	100,055
Hollow drill steel	1,814	2,022	2,201	2,739	1,747
Pipe and tubing—Welded	1,862,041	1,750,465	1,743,339	1,393,189	1,289,240
—Other	1,914,494	1,169,554	1,302,571	1,080,551	715,912
Round and shaped wire	377,789	439,851	576,056	513,200	400,610
Flat wire	17,264	20,817	23,221	20,209	15,971
Bale ties	437	85	311	255	827
Galvanized wire fencing	8,314	11,261	19,159	16,014	18,196
Wire nails	292,133	336,814	428,375	401,575	340,190
Barbed wire	18,937	18,429	27,659	25,981	39,565
Black plate	68,245	82,070	46,015	16,939	12,597
Tin plate	308,353	259,538	376,324	444,077	309,298
Terne plate	944	3,243	4,227	4,118	2,575
Sheets—Hot rolled	1,491,786	2,161,757	2,617,023	2,674,157	1,638,920
—Cold rolled	1,477,134	2,412,987	3,236,859	3,454,522	2,453,621
—Coated (incl. Galvanized)	1,349,770	2,139,148	2,312,940	1,918,852	1,471,460
—Coated alloy	23	3	58	178	
Strip—Hot rolled	15,806	27,349	35,646	32,396	23,089
—Cold rolled	46,972	49,582	49,272	41,541	42,453
—Hot and cold rolled—Alloy	15,328	21,253	25,076	20,955	19,331
Sheets—Other—Electric coated	81,854	38,591	95,117	103,873	59,559
Total Steel Mill Products	15,494,970	17,518,135	21,134,582	19,306,612	14,284,605
Carbon	14,783,625	16,620,845	20,181,302	18,548,909	13,626,721
Alloy	558,671	728,188	753,543	579,627	483,172
Stainless	152,674	169,102	199,737	178,076	174,712
Other Steel Products:					
Structural shapes, fabricated	174,422	180,412	125,853	128,996	87,705
Shapes—Cold formed	368	534	330	393	540
Sashes and frames	501	213	164	503	600
Fence or sign posts	2,154	2,131	2,412	8,575	3,022
Wire—Nonmetallic covered	331	632	533	392	479
Wire rope	93,622	114,266	98,830	90,670	62,451
Wire strand	157,396	171,573	166,055	140,300	112,899
Welded wire fabric	19,027	23,203	25,994	14,826	10,631
Other nails and staples	24,684	30,784	33,762	31,130	28,681
Bale ties, made from strip	2,050	8,046	28,207	37,362	12,726
Bolts, nuts and rivets	429,679	499,578	532,576	442,987	249,087
Grinding balls	16,147	26,578	22,305	12,810	14,538
Blanks, nonrectangular flat rolled	6,011	6,753	10,025	19,035	7,023
Rigid conduit	2,053	3,094	3,323	851	5,078
Pipe and tube fittings	88,264	81,714	79,209	56,403	56,479
Total Other Steel Products	1,016,709	1,149,511	1,129,578	985,233	651,939
Total Steel Products	16,511,679	18,667,646	22,264,160	20,291,845	14,936,544
Iron Products and Ferroalloys:					
Bar iron, iron slabs and blooms, etc.	1,144	65	29	19	3
Cast iron soil pipe and fittings	742	807	1,467	900	2,151
Other cast iron pipe and fittings	5,842	8,701	9,828	6,770	5,749
Malleable cast iron pipe fittings	17,275	17,324	14,669	13,834	11,129
Castings and forgings	117,655	135,056	92,471	48,725	37,562
Pig iron	400,035	476,384	655,416	372,767	414,664
Sponge iron	65,793	104,154	97,641	140,338	124,712
Ferromanganese (manganese content)	473,399	638,724	527,926	416,082	417,428
Ferrosilicon (silicon content)	46,967	74,464	85,916	75,248	64,122
Ferrochromium (chromium content)	162,443	113,521	174,814	134,208	150,261
Other ferroalloys	75,046	89,708	143,949	157,387	129,403
Total Iron Products and Ferroalloys	1,366,341	1,658,908	1,804,126	1,366,278	1,357,184
GRAND TOTAL	17,878,020	20,326,554	24,068,286	21,658,123	16,293,728
Iron and Steel Scrap	558,142	760,278	793,948	625,381	507,158

OVERSIZE FOLDOUT(S) FOUND HERE IN THE PRINTED EDITION OF THIS VOLUME ARE FOUND FOLLOWING THE LAST PAGE OF TEXT IN THIS MICROFICHE EDITION.

SEE FOLDOUT NO 3

OVERSIZE FOLDOUT(S) FOUND HERE IN THE PRINTED EDITION OF THIS VOLUME ARE FOUND FOLLOWING THE LAST PAGE OF TEXT IN THIS MICROFICHE EDITION.

SEE FOLDOUT NO 4

TABLE 22—IMPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
Steel Mill Products:										
Ingots, blooms, billets, slabs, etc.	155,343	344,693	413,899	297,711	240,110	242,836	182,857	172,305	261,696	274,414
Wire rods	829,259	985,414	1,326,580	1,341,575	1,120,744	1,112,772	1,950,624	1,416,252	1,402,894	1,544,359
Structural shapes and piling	1,828,966	1,984,782	1,926,967	1,817,187	1,424,451	876,161	1,234,489	1,337,999	1,712,119	1,571,877
Plates	2,059,713	1,819,812	2,924,989	2,116,459	1,596,429	1,403,265	1,622,952	1,348,753	1,685,885	1,573,665
Rails and accessories	414,076	313,223	285,885	207,191	113,667	175,418	117,482	77,758	74,803	68,821
Bars and tool steel	859,989	1,127,414	1,337,014	1,363,907	935,790	923,705	1,869,093	1,700,742	1,972,663	2,095,150
Pipe and tubing	3,776,535	2,920,019	3,045,910	2,473,740	2,005,152	1,684,766	1,894,524	1,658,784	1,843,402	1,841,125
Wire and wire products	714,874	827,257	1,074,781	977,234	815,359	647,087	1,047,942	944,958	1,041,003	963,047
Tin mill products	377,542	344,851	426,566	465,134	324,470	414,860	327,321	473,671	524,494	425,068
Sheets and strip	4,478,673	6,850,670	8,371,991	8,246,474	5,708,433	4,531,572	5,722,754	6,018,460	7,162,048	7,964,827
Total Steel Mill Products	15,494,970	17,518,135	21,134,582	19,306,612	14,284,605	12,012,442	15,970,038	15,149,682	17,681,007	18,322,353
Other Steel Products	1,016,709	1,149,511	1,129,578	985,233	651,939	656,963	846,037	704,294	668,062	625,826
Total Steel Products	16,511,679	18,667,646	22,264,160	20,291,845	14,936,544	12,669,405	16,816,075	15,853,976	18,349,069	18,948,179
Iron Products and Ferroalloys	1,366,341	1,658,908	1,804,126	1,366,278	1,357,184	1,249,840	1,146,599	1,154,321	1,209,755	681,466
GRAND TOTAL	17,878,020	20,326,554	24,068,286	21,658,123	16,293,728	13,919,245	17,962,674	17,008,297	19,558,824	19,629,645

TABLE 23—IMPORTS OF STEEL MILL PRODUCTS

(Net tons)

Months	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
January	1,265,093	1,264,346	1,537,793	1,121,267	1,006,896	1,801,358	827,241	1,380,782	1,093,184	1,304,726
February	1,666,905	1,329,115	2,219,592	1,002,459	966,145	1,192,004	829,881	1,305,921	1,129,337	1,229,584
March	1,119,981	1,095,893	1,988,233	1,175,410	1,033,899	1,153,380	891,779	1,169,807	1,095,494	1,253,897
April	1,249,874	1,071,955	2,174,892	1,114,786	948,334	959,036	971,269	1,050,822	929,875	1,363,434
May	1,614,653	1,654,757	1,511,255	1,817,390	1,071,425	856,158	1,142,356	1,603,920	1,603,175	1,791,944
June	1,202,689	1,365,619	1,359,820	1,818,620	1,354,854	927,035	1,292,316	1,228,765	1,598,803	2,111,638
July	1,079,040	1,514,423	1,784,814	1,582,037	1,190,080	804,651	1,292,589	1,380,407	1,531,098	1,688,307
August	1,374,121	1,783,935	1,870,390	1,831,115	1,201,166	748,176	1,607,333	1,315,662	1,787,250	1,554,015
September	1,063,755	1,640,695	1,584,169	2,057,413	1,282,664	697,209	1,259,530	1,074,689	1,569,825	1,779,731
October	1,141,939	1,603,188	1,715,239	1,761,726	1,267,934	817,768	2,021,301	1,234,522	1,910,435	1,437,299
November	1,179,301	1,651,951	2,016,345	1,937,947	1,596,834	902,900	1,925,109	1,312,797	1,823,991	1,471,900
December	1,533,920	1,542,258	1,372,040	2,086,549	1,364,403	1,152,767	1,909,334	1,091,588	1,608,540	1,335,878
TOTAL *	15,494,970	17,518,135	21,134,582	19,306,612	14,284,605	12,012,442	15,970,038	15,149,682	17,681,007	18,322,353

*** Revised totals include adjustments not shown in monthly figures.**

TABLE 25—IMPORTS OF TOTAL STEEL MILL PRODUCTS BY COUNTRIES OF ORIGIN

(Net Tons)

	1980	% Total	% Apparent Supply **	1979	% Total	% Apparent Supply **	1978	% Total	% Apparent Supply **	1977	% Total	% Apparent Supply **	1976	% Total	% Apparent Supply **
Canada	2,369,501	15.3	2.5	2,353,883	13.4	2.0	2,363,856	11.2	2.0	1,892,032	9.8	1.7	1,303,680	9.1	1.3
Mexico	67,395	0.4	0.1	159,627	0.9	0.1	213,973	1.0	0.2	223,612	1.2	0.2	141,377	1.0	0.1
Brazil	457,724	3.0	0.5	432,238	2.5	0.4	292,683	1.4	0.3	65,290	0.3	0.1	67,409	0.5	0.1
Argentina	18,253	0.1	—	37,579	0.2	—	239,119	1.1	0.2	89,956	0.5	0.1	87,021	0.6	0.1
Total Latin America	629,938	4.1	0.7	647,069	3.7	0.6	772,828	3.6	0.7	391,400	2.1	0.4	311,528	2.2	0.3
United Kingdom	236,784	1.5	0.2	433,727	2.5	0.4	671,765	3.2	0.6	818,159	4.2	0.7	533,055	3.7	0.5
Netherlands	340,302	2.2	0.4	499,981	2.8	0.4	685,622	3.2	0.6	607,829	3.1	0.5	388,716	2.7	0.4
Belgium-Luxembourg	870,058	5.6	0.9	956,405	5.5	0.8	1,238,325	5.9	1.1	1,146,688	5.9	1.1	462,621	3.2	0.5
France	966,987	6.2	1.0	1,340,670	7.7	1.2	1,758,832	8.3	1.5	1,586,164	8.2	1.5	730,343	5.1	0.7
West Germany	1,298,068	8.4	1.4	1,868,076	10.7	1.6	2,294,516	10.9	1.9	2,006,634	10.4	1.9	758,706	5.3	0.8
Italy	174,054	1.1	0.2	291,671	1.7	0.3	788,684	3.7	0.7	662,702	3.4	0.6	303,395	2.1	0.3
Total EEC *	3,886,777	25.1	4.1	5,405,389	30.9	4.7	7,463,394	35.3	6.4	6,832,850	35.4	6.3	3,187,660	22.3	3.2
Sweden	91,921	0.6	0.1	194,031	1.1	0.2	227,140	1.1	0.2	125,964	0.7	0.1	106,510	0.7	0.1
Finland	36,463	0.2	—	145,985	0.8	0.1	213,844	1.0	0.2	138,939	0.7	0.1	29,599	0.2	—
Poland	119,498	0.8	0.1	117,121	0.7	0.1	364,066	1.7	0.3	170,391	0.9	0.2	105,805	0.7	0.1
Spain	462,430	3.0	0.5	380,190	2.2	0.3	665,251	3.1	0.6	310,104	1.6	0.3	234,361	1.6	0.2
Romania	57,581	0.4	0.1	38,555	0.2	—	107,058	0.5	0.1	44,444	0.2	—	8,280	0.1	—
Total Europe	4,743,912	30.6	5.0	6,392,770	36.5	5.6	9,211,103	43.6	7.9	7,681,040	39.8	7.1	3,739,593	26.2	3.7
Japan	6,006,813	38.8	6.3	6,336,003	36.2	5.5	6,487,166	30.7	5.6	7,820,376	40.5	7.2	7,984,131	55.9	7.9
Korea Republic	1,039,895	6.7	1.1	985,666	5.6	0.9	1,052,122	5.0	0.9	790,039	4.1	0.7	790,458	5.5	0.8
Taiwan	95,949	0.6	0.1	108,515	0.6	0.1	250,369	1.2	0.2	67,234	0.3	0.1	62,485	0.4	0.1
Republic of So. Africa	44,661	2.8	0.5	485,307	2.8	0.4	694,986	3.3	0.6	463,096	2.4	0.4	21,495	0.2	—
Total Asia & Africa	7,619,964	49.2	8.0	7,965,000	45.5	6.9	8,606,107	40.7	7.4	9,237,188	47.8	8.5	8,879,922	62.2	8.8
Australia & Oceania	131,655	0.8	0.1	159,413	0.9	0.1	180,688	0.9	0.1	104,952	0.5	0.1	49,882	0.3	—
Total Imports of Steel Mill Products	15,494,970	100.0	16.3	17,518,135	100.0	15.2	21,134,582	100.0	18.1	19,306,612	100.0	17.8	14,284,605	100.0	14.1

* Includes total for Denmark and Ireland.
Country detail may not add to regional total because of omissions of some countries.
** As developed in table 1A of this Report.

RAW STEEL PRODUCTION

Raw steel is defined as steel in the first solid state after melting suitable for further processing or sale, including ingots, steel castings and strand or pressure cast blooms, billets, slabs, or other product forms.

Includes only that portion of the steel casting production which was produced in foundries operated by companies producing steel ingots.

Raw steel production capability is defined as the tonnage capability to produce raw steel for a sustained full order book.

Type of Furnace

Grades

State Distribution

Monthly Data

TABLE 27—RAW STEEL PRODUCTION BY TYPE OF FURNACE AND BY CARBON, ALLOY AND STAINLESS GRADES

Year	(Thousands of net tons)														Per Cent of Total						Steel for Castings (Included in Total Production)			
	Open Hearth			Basic Oxygen Process			Electric				Total All Grades				By Grade			By Type of Furnace			(Thousands of net tons)			
	Carbon	Alloy	Total	Carbon	Alloy	Total	Carbon	Alloy	Stainless	Total	Carbon	Alloy	Stainless	Total	Carbon	Alloy	Stain-less	OH	BOP	Electric	Carbon	Alloy	Stain-less	Total
1980	11,844	1,210	13,054	60,532	7,083	67,615	22,313	7,152	1,701	31,166	94,689	15,445	1,701	111,835	84.7	13.8	1.5	11.7	60.4	27.9	121	55	2	178
1979	17,200	1,958	19,158	75,334	7,922	83,256	23,692	8,128	2,107	33,927	116,226	18,008	2,107	136,341	85.3	13.2	1.5	14.0	61.1	24.9	154	59	2	215
1978	19,026	2,284	21,310	75,053	8,431	83,484	22,837	7,446	1,954	32,237	116,916	18,161	1,954	137,031	85.3	13.3	1.4	15.6	60.9	23.5	157	51	2	210
1977	18,045	1,998	20,043	70,551	6,857	77,408	19,534	6,486	1,862	27,882	108,130	15,341	1,862	125,333	86.3	12.2	1.5	16.0	61.8	22.2	141	45	2	188
1976	21,426	2,044	23,470	73,588	6,330	79,918	16,994	5,934	1,684	24,612	112,008	14,308	1,684	128,000	87.5	11.2	1.3	18.3	62.5	19.2	154	47	2	203
1975	19,794	2,367	22,161	64,840	6,961	71,801	15,726	5,843	1,111	22,680	100,360	15,171	1,111	116,642	86.0	13.0	1.0	19.0	61.6	19.4	185	68	2	255
1974	32,479	3,020	35,499	74,534	7,018	81,552	19,595	6,924	2,150	28,669	126,608	16,962	2,150	145,720	86.9	11.6	1.5	24.3	56.0	19.7	125	73	2	200
1973	36,768	3,012	39,780	76,868	6,392	83,260	19,111	6,759	1,889	27,759	132,747	16,163	1,889	150,799	88.0	10.7	1.3	26.4	55.2	18.4	114	62	1	177
1972	32,036	2,900	34,936	69,231	5,353	74,584	16,431	5,726	1,564	23,721	107,007	12,173	1,263	120,443	88.3	10.5	1.2	26.2	56.0	17.8	80	54	2	136
1971	32,612	2,947	35,559	59,472	4,471	63,943	14,923	4,755	1,263	20,941	117,698	13,979	1,564	133,241	88.8	10.1	1.1	29.5	53.1	17.4	92	52	2	146
1970	44,361	3,661	48,022	58,889	4,441	63,330	14,161	4,722	1,279	20,162	117,411	12,824	1,279	131,514	89.3	9.7	1.0	36.5	48.2	15.3	98	62	2	162
1969	55,530	5,364	60,894	55,927	4,309	60,236	13,375	5,188	1,569	20,132	124,832	14,861	1,569	141,262	88.4	10.5	1.1	43.1	42.6	14.3	116	54	2	172
1968	59,572	6,264	65,836*	45,706	3,106	48,812	10,991	4,391	1,432	16,814	116,269	13,761	1,432	131,462	88.4	10.5	1.1	50.1	37.1	12.8	116	55	2	173
1967	64,265	6,425	70,690*	38,811	2,623	41,434	10,114	3,524	1,451	15,089	113,190	12,572	1,451	127,213	89.0	9.9	1.1	55.6	32.6	11.8	134	59	1	194
1966	77,673	7,630	85,303*	31,892	2,036	33,928	9,167	4,052	1,651	14,870	118,732	13,718	1,651	134,101	88.5	10.2	1.3	63.6	25.3	11.1	245	70	2	317

* Bessemer included with open hearth.

BEST AVAILABLE COPY

TABLE 28—RAW STEEL PRODUCTION BY STATES

(Thousands of net tons)

States	1980	1979	1978	1977	1976
New York	2,675	4,035	4,203	3,958	4,799
Pennsylvania	23,517	28,213	28,070	25,737	26,696
R.I., Conn., N.J., Del., Md.	5,161	6,638	6,350	5,306	5,870
Va., W. Va., Ga., Fla., N.C., S.C., La.	6,066	6,788	6,441	5,484	5,403
Kentucky	2,141	2,438	2,523	2,289	2,206
Ala., Tenn., Miss., Ark.	3,452	4,487	4,305	3,963	4,109
Ohio	16,100	21,082	21,268	21,466	22,419
Indiana	19,820	22,912	24,351	21,472	22,178
Illinois	8,961	11,729	12,443	10,872	11,030
Michigan	7,877	10,922	10,789	10,051	10,382
Minn., Mo., Okla., Texas, Nebr., Iowa	8,642	8,260	7,845	6,753	5,079
Ariz., Colo., Utah, Wash., Ore., Hawaii	4,795	5,165	4,968	4,758	4,431
California	2,628	3,672	3,472	3,224	3,398
TOTAL	111,835	136,341	137,031	125,333	128,000

PIG IRON AND FERROALLOYS

Production
Consumption
Shipments
Monthly Production
Grades
Ferroalloys Production, Imports for Consumption
Materials Used

TABLE 30—BLAST FURNACE PRODUCTION

Including Direct Castings and Ferroalloys
(Thousands of net tons)

Year	Basic	Bessemer	Low Phosphorus	Foundry	Malleable	All Other	Total Blast Furnace Production
1980	66,964	39	72	713	799	134	68,721
1979	84,047	12	44	1,591	1,003	306	87,003
1978	84,497	295	110	1,856	471	450	87,679
1977	78,198	254	122	1,610	690	454	81,328
1976	82,894	1,150	112	1,489	800	425	86,870
1975	75,911	1,087	140	1,321	814	650	79,923
1974	91,193	1,100	106	1,528	1,382	600	95,909
1973	96,202	1,242	101	1,581	1,352	730	101,208
1972	83,961	1,336	105	1,977	1,193	828	89,400
1971	77,341	1,215	145	1,214	1,336	441	81,692

TABLE 31—PIG IRON CONSUMPTION AND SALES

(Thousands of net tons)

Year	Steelmaking	Other Than Steelmaking *	Total
1980	66,111	2,794	68,905
1979	83,307	3,984	87,291
1978	83,571	4,148	87,719
1977	77,141	3,711	80,852
1976	82,039	4,322	86,361
1975	72,837	4,115	76,952
1974	90,500	5,085	95,585
1973	96,138	4,727	100,865
1972	85,268	4,198	89,466
1971	78,223	3,608	81,831

* Data includes sales for use outside the steel industry.

TABLE 29—MONTHLY AND QUARTERLY RAW STEEL PRODUCTION

(Thousands of net tons)

Periods	1980		1979		1978		1977		1976	
	Net Tons	Capability Utilization * %	Net Tons	Capability Utilization * %	Net Tons	Capability Utilization * %	Net Tons	Capability Utilization * %	Net Tons	Capability Utilization * %
January	10,701	82.7	11,105	83.5	10,301	77.2	9,089	66.8	9,835	74.4
February	10,332	85.3	10,562	87.9	9,643	80.1	8,859	72.1	9,906	80.1
March	11,439	88.4	12,576	94.5	11,083	83.1	11,049	81.2	11,294	85.4
1st Quarter	32,472	85.4	34,227	88.6	31,027	80.1	28,997	73.4	31,035	80.0
April	10,658	83.0	12,196	93.4	11,528	88.5	11,167	83.3	11,439	88.4
May	9,226	69.6	12,789	94.8	12,320	91.5	12,201	88.6	12,136	90.8
June	7,501	58.4	12,230	93.7	11,861	91.1	11,384	84.9	11,605	89.7
2nd Quarter	27,385	70.3	37,213	94.0	35,709	90.4	34,752	85.5	35,180	89.6
First 6 months	59,857	77.8	71,440	91.0	66,736	85.3	63,749	79.5	66,215	84.8
July	6,796	53.1	11,821	89.9	11,388	85.1	10,319	76.7	11,400	84.8
August	7,018	54.4	11,309	86.0	11,550	86.3	10,393	77.2	11,128	82.8
September	7,767	62.6	10,541	82.8	11,467	88.1	10,050	77.2	10,463	80.4
3rd Quarter	21,581	56.8	33,659	86.2	34,405	86.5	30,762	77.0	32,991	82.7
9 Months	81,438	70.8	105,099	89.6	101,141	85.7	94,511	78.7	99,206	84.1
October	9,442	72.2	10,810	84.4	12,105	89.8	10,442	77.7	10,296	75.8
November	10,057	79.5	9,997	80.6	11,654	89.4	9,748	75.0	9,494	72.2
December	10,180	77.8	9,996	78.0	11,812	87.7	10,031	74.7	9,215	67.8
4th Quarter	29,679	76.5	30,803	81.0	35,571	88.9	30,221	75.8	29,005	71.9
Second 6 Months	51,260	66.8	64,462	83.6	69,976	88.3	60,983	76.4	61,996	77.3
YEAR †	111,835	72.8	136,341	87.8	137,031	86.8	125,333	78.4	128,000	80.9

* Raw steel production capability varies in each calendar quarter and aggregated 158.3, 160.0, 157.9, 155.3 and 153.7 million net tons for the full years 1976, 1977, 1978, 1979, and 1980 respectively.

† Revised totals include adjustments not shown in monthly figures.

See notes on pages 53 and 55.

TABLE 32—MONTHLY BLAST FURNACE PRODUCTION
PIG IRON AND FERROALLOYS

(Thousands of net tons)

Months	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
January	6,583	7,064	6,390	5,985	6,636	7,371	8,582	8,247	6,648	7,835
February	6,357	6,636	5,971	5,827	6,754	7,135	7,823	7,787	6,627	7,409
March	7,115	7,953	6,894	7,174	7,519	8,071	8,407	8,657	7,744	8,562
April	6,677	7,726	7,189	7,382	7,601	7,432	8,253	8,519	7,766	8,464
May	5,906	8,277	7,936	7,962	8,116	6,990	8,408	8,838	8,044	8,827
June	4,664	8,026	7,754	7,530	7,874	6,239	8,205	8,496	7,468	7,974
July	4,222	7,799	7,636	7,008	7,999	5,968	8,358	8,546	7,361	6,877
August	4,360	7,351	7,515	6,763	7,751	6,031	7,872	8,310	7,427	3,707
September	4,596	6,762	7,391	6,526	6,995	6,245	7,732	8,117	7,158	5,167
October	5,621	6,779	7,809	6,595	6,969	6,292	8,206	8,619	7,650	5,559
November	6,132	6,258	7,533	6,108	6,382	5,981	7,270	8,432	7,515	5,388
December	6,489	6,372	7,668	6,419	6,272	6,234	6,752	8,637	8,001	5,970
TOTAL *	68,721	87,003	87,679	81,328	86,870	79,923	95,909	101,208	89,400	81,692

* Revised totals include adjustments not shown in monthly figures.

TABLE 33—PIG IRON SHIPMENTS
OTHER THAN FOR OWN USE

(Thousands of net tons)

Year	Basic	Bess. & Low Phos.	Foundry	Malleable and Silvery	Total	Incl. in Total	
						Hot Metal	Cold Metal
1980	301	183	125	597	1,206	648	558
1979	538	279	227	811	1,855	1,152	703
1978	677	413	210	799	2,099	1,287	812
1977	663	533	173	737	2,106	1,144	962
1976	530	439	356	836	2,161	1,160	1,001
1975	488	379	291	752	1,910	981	929
1974	743	487	430	1,223	2,883	1,413	1,470
1973	736	598	580	1,398	3,312	1,338	1,974
1972	700	563	571	1,075	2,909	1,195	1,714
1971	463	572	523	1,037	2,595	892	1,703

TABLE 34—PRODUCTION OF FERROALLOYS

(Thousands of net tons)

	1980 P	1979 R	1978	1977	1976
Ferromanganese	216	317	273	334	483
Silicomanganese	190	165	141	120	129
Ferrosilicon *	771	857	820	894	861
Ferrochrome	210	249	176	201	195
Other Chrome **	31	47	43	69	74
Other Ferroalloys ***	190	268	213	136	168
Total	1,608	1,903	1,666	1,754	1,910

TABLE 35—FERROALLOY IMPORTS FOR CONSUMPTION

(Thousands of net tons)

	1980 P	1979 R	1978	1977	1976
Ferromanganese	603	821	675	534	537
Silicomanganese	75	95	95	88	80
Ferrosilicon *	92	141	171	141	108
Ferrochrome	297	242	327	224	243
Other Chrome **	4	4	4	20	18
Other Ferroalloys ***	60	78	81	92	68
Total	1,134	1,381	1,353	1,099	1,054

* Ferrosilicon includes Silicon Metal.
** Other Chrome includes Ferrochrome—silicon and chromium metal.
*** Other Ferroalloys includes Ferrophosphorus, Manganese Metal and all other ferroalloys not listed.
Source: Compiled by The Ferroalloys Association from Bureau of Mines and Department of Census reports.

PIG IRON
Materials Used per Ton

TABLE 36—MATERIALS USED BY BLAST FURNACES IN MANUFACTURE OF IRON (PIG AND MOLTEN) IN 1980

Products	Thousands of net tons	Net tons per ton of iron produced
Ore:		
Iron ore (incl. manganiferous and block)	7,164	0.104
Manganese ore (incl. ferruginous manganese)	211	0.003
Agglomerated products (sinter, pellets, etc.)	100,278	1.459
Total ores and agglomerated products consumed	107,653	1.566
Less flue dust and sludge produced	1,797	0.026
Net—Ores & agglomerated products consumed	105,856	1.540
Scrap:		
Total scrap consumed	3,978	0.058
Less produced at blast furnaces & auxiliary units	1,081	0.016
Net—Scrap consumed	2,897	0.042
Mill cinder, roll scale, etc.	3,022	0.044
Limestone, dolomite, other flux materials †	12,522	0.182
Coke:		
Total coke consumed in blast furnaces	40,398	0.588
Less coke breeze (dust) recovered	1,252	0.018
Net—Coke consumed	39,146	0.570

* Includes production at or near mine site and at other locations.
† Based on total limestone and dolomite charged directly into blast furnaces, plus tonnage consumed in the production of agglomerates.

BASIC MATERIALS USED IN THE PRODUCTION OF IRON AND STEEL PRODUCTS

Coal

Fluxes

Coke

Iron Ore

Agglomerated Products

Scrap

Nonferrous Metals

Fuels

Electric Power

Oxygen

Manganese Ore

NOTE: Tables 37, 38, 44, 45, and 46 of this section contain data on the use of coal, coke, fuels, electric power, and oxygen by the steel industry. Quantities are given for each material for the last five years or longer in units commonly used for each material. No attempt is made to provide all of the energy inputs to and outputs from the steel industry. Whereas trends in the use of each material can be derived from the Tables, conversion of the data to energy units or estimates of energy consumption by the steel industry is subject to serious error.

TABLE 37—COAL CONSUMPTION BY USES—IRON AND STEEL INDUSTRY

(Thousands of net tons)

Year	In Production of		Other Purposes	Total
	Coke	Steam *		
1980	58,446	2,602	409	61,457
1979	69,437	2,006	245	71,688
1978	64,562	2,633	285	67,480
1977	69,806	3,048	281	73,135
1976	77,027	2,748	296	80,071
1975	75,515	2,737	364	78,616
1974	81,567	3,426	534	85,527
1973	85,586	4,199	579	90,364
1972	77,081	3,964	400	81,445
1971	74,819	4,358	269	79,446

* Includes coal consumed in generating electric power.

TABLE 38—CONSUMPTION OF FLUXES

(Thousands of net tons)

Use	Fluorspar	Limestone	Lime	Other Fluxes	Total
1980					
In agglomerated products		6,109			6,109
In blast furnaces		6,413			6,413
In steelmaking furnaces:					
Open hearth	45	526	122	154	847
Basic oxygen process	403	295	5,286	558	6,542
Electric	76	202	1,038	68	1,384
TOTAL	524	13,545	6,446	780	21,295
1979	562	18,522	8,190	1,165	28,439
1978	570	18,552	8,300	1,169	28,591
1977	506	18,766	7,293	1,135	27,700
1976	587	20,008	7,649	1,290	29,534
1975	534	20,142	7,110	892	28,678

TABLE 41—AGGLOMERATED PRODUCTS*

(Thousands of net tons)

	1980	1979	1978	1977	1976
Materials Used:					
Ore fines and concentrates	88,056	113,048	104,501	75,756	99,777
Flue dust and sludge	2,065	2,509	2,422	2,520	2,452
Scale	3,464	4,235	4,057	3,697	3,531
Coke breeze	1,416	1,892	2,014	1,992	2,054
Coal	171	130	137	126	139
Cinder and slag	2,206	2,789	2,907	1,789	2,156
Limestone and dolomite	6,109	8,210	7,530	7,773	7,422
Other	1,417	2,303	2,747	2,711	2,262
TOTAL MATERIALS USED	104,904	135,116	126,315	96,364	119,793
Produced From Above Materials:					
Pellets	61,305	79,996	71,645	47,230	68,928
Sinter, briquettes, nodules and other	27,886	35,969	36,140	34,987	36,334
TOTAL PRODUCTION	89,191	115,965	107,785	82,217	105,262
Receipts of Foreign Production:					
Pellets	12,743	19,283	18,259	18,995	17,724
Sinter, briquettes, and other	†	†	†	†	†
TOTAL	12,743	19,283	18,259	18,995	17,724
Consumed In:					
Blast Furnaces—					
Pellets	72,379	90,684	86,629	76,597	82,829
Sinter, briquettes, nodules and other	27,899	35,898	35,572	35,123	36,431
TOTAL	100,278	126,582	122,201	111,720	119,260
Steelmaking Furnaces—					
Pellets	183	213	261	227	341
Sinter, briquettes, nodules and other	2	16	54	4	21
TOTAL	185	229	315	231	362
TOTAL CONSUMPTION	100,463	126,811	122,516	111,951	119,622

* Includes ore agglomerates whether produced at consuming plants, at or near the mine site or several non-consuming plants in the United States. The latter two includes plants owned and operated by Bethlehem Steel Corp., Buffalo Sintering Corp., Cleveland-Cliffs Iron Co., Erie Mining Co., Jones & Laughlin Steel Corp., Republic Steel Corp., Reserve Mining Co. and United States Steel Corp. Also includes tonnage exported from the U.S. by agglomerate producers.

† Included with pellets.

TABLE 42—SCRAP—STOCKS, PRODUCTION, RECEIPTS, AND CONSUMPTION BY STEEL INDUSTRY

(Thousands of net tons)

ar	Stocks On Hand Beginning of Year	Produced	Received *	Consumed	Shipped, Transferred or Otherwise Disposed	Stocks On Hand End of Year
0 P	8,005	36,885	34,676	67,160	5,463	6,943
9 R	7,132	45,376	37,955	77,190	5,846	7,427
8	8,010	44,920	35,651	76,294	5,357	6,930
7	8,259	42,412	31,765	69,301	5,451	7,684
6	7,401	43,464	31,860	68,427	5,709	8,589
5	6,880	40,060	27,919	62,836	4,442	7,581
4	6,002	47,421	40,180	81,074	5,589	6,940
3	7,112	50,406	36,655	82,467	5,733	5,973
2	7,508	44,431	33,702	73,415	5,160	7,066
1	6,552	42,549	26,755	63,694	4,931	7,231

Source: Bureau of Mines.
* Includes scrap received from other plants within the same company.

CONSUMPTION BY GRADE

(Thousands of net tons)

	1979 R	1980 P
Carbon steel:		
Low phosphorous plate and punchings	537	435
Cut structurals and plate	1,027	1,202
No. 1 heavy melting steel	26,481	22,658
No. 2 heavy melting steel	3,935	3,552
No. 1 and electric furnace bundles	10,364	7,948
No. 2 and all other bundles	2,186	2,167
Turnings and borings	1,868	1,537
Slag scrap (Fe content)	4,725	4,245
Shredded or fragmentized	2,868	3,230
No. 1 busheling	1,579	1,090
All other carbon steel scrap	13,088	10,896
Total Carbon Steel	68,658	58,950
Stainless steel	1,139	1,501
Alloy steel (excl. stainless)	1,945	1,700
Iron scrap	3,902	3,274
Other grades or types of scrap	1,546	1,735
TOTAL SCRAP	77,190	67,160

TABLE 43—INDUSTRY CONSUMPTION OF SCRAP AND PIG IRON BY TYPES OF FURNACES

(Thousands of net tons)

Year	Type of Furnace	Consumed		
		Scrap	Pig Iron	Total
1980[P]	Open hearth	7,391	8,426	15,817
	Basic oxygen process	21,847	56,433	78,280
	Electric	33,191	761	33,952
	Cupola	215	107	322
	Direct castings	...	1,187	1,187
	Blast	3,662	...	3,662
	Other (Incl. air furnace)	854	267	1,121
	TOTAL	67,160	67,181	134,341
1979[R]	Open hearth	10,406	12,860	23,266
	Basic oxygen process	26,496	68,526	95,022
	Electric	34,813	559	35,372
	Cupola	281	201	482
	Direct castings	...	2,239	2,239
	Blast	4,117	...	4,117
	Other (Incl. air furnace)	1,077	357	1,434
	TOTAL	77,190	84,742	161,932
1978	Open hearth	11,675	13,437	25,112
	Basic oxygen process	26,006	69,028	95,034
	Electric	32,694	1,112	33,806
	Cupola	394	189	583
	Direct castings	...	1,581	1,581
	Blast	4,185	...	4,185
	Other (Incl. air furnace)	1,340	354	1,694
	TOTAL	76,294	85,701	161,995
1977	Open hearth	11,009	12,525	23,534
	Basic oxygen process	25,034	63,877	88,911
	Electric	28,188	685	28,873
	Cupola	361	262	628
	Direct castings	...	1,727	1,727
	Blast	3,771	...	3,771
	Other (Incl. air furnace)	938	314	1,252
	TOTAL	69,301	79,390	148,691
1976	Open hearth	12,251	15,405	27,656
	Basic oxygen process	26,204	66,138	92,342
	Electric	25,099	383	25,482
	Cupola	405	194	599
	Direct castings	...	1,736	1,736
	Blast	3,692	...	3,692
	Other (Incl. air furnace)	776	357	1,133
	TOTAL	68,427	84,213	152,640

Source: Bureau of Mines.

TABLE 44—CONSUMPTION OF FUELS

Year	Purpose: Blast Furnace Area — Blast Furnaces	Purpose: Blast Furnace Area — Other Uses	Purpose: Steel Melting Furnaces	Purpose: Heating and Annealing Furnaces	Purpose: Other	Total
			FUEL OIL			
			(Thousands of gallons)			
1980	298,647	10,768*	101,923	151,777	137,230	700,345
1979	572,945	32,151*	211,603	383,839	228,599	1,429,137
1978	533,101	99,616*	289,518	648,173	333,463	1,903,871
1977	393,625	89,869*	256,330	590,718	368,634‡	1,699,176
1976	445,151	79,825*	185,509	591,906	311,457‡	1,613,848
			TAR AND PITCH			
			(Thousands of gallons)			
1980	41,328		49,835		1,759	92,922
1979	60,208		77,221		1,251	138,680
1978	79,529	†	56,218		10,586	146,333
1977	88,448	†	71,036	†	21,572	181,056
1976	133,136	†	80,616	†	32,142	245,894
			LIQUID PETROLEUM GAS			
			(Thousands of gallons)			
1980		†	†	2,506	3,388	5,894
1979	†	†	†	6,545	7,381	13,926
1978	†	†	†	15,725	9,639	25,364
1977	†	†	†	27,755	11,206	38,961
1976	†	†	†	14,445	11,878‡	26,323
			NATURAL GAS			
			(Millions of cubic feet—based on 1,000 B.T.U. per cubic foot)			
1980	20,962	30,697*	32,481	317,432	158,740	560,312
1979	23,930	35,018*	38,720	368,538 R	177,486	643,692 R
1978	23,254	29,675*	56,701	327,302	156,252	593,184
1977	21,305	27,108*	36,953	341,598	140,820	567,784
1976	24,865	19,607*	52,759	333,438	163,635‡	594,304
			COKE OVEN GAS			
			(Millions of cubic feet—based on 500 B.T.U. per cubic foot)			
1980	14,302	268,114*	5,885	208,499	174,599	671,399
1979	15,980	292,238*	5,004	254,963	197,426	765,611
1978	6,469	264,833*	4,592	250,295	189,476	715,665
1977	7,666	306,206*	4,404	257,985	199,564	775,825
1976	19,051	332,209*	5,309	269,116	254,446‡	871,131
			BLAST FURNACE GAS			
			(Millions of cubic feet—based on 95 B.T.U. per cubic foot)			
1980	1,141,893	727,414	10,051	62,506	1,224,859	3,166,723
1979	1,516,885	882,764	†	193,518	1,670,939	4,264,106
1978	1,531,049	1,044,258	†	198,411	1,654,582	4,428,300
1977	1,498,058	1,093,217		188,430	1,395,172	4,174,877
1976	1,501,873	1,083,026		121,509	1,611,403	4,317,811

* Includes coke oven underfiring.
‡ Includes heating ovens for wire rods.

† Included with "Other".

* Includes coke oven underfiring.
‡ Includes heating ovens for wire rods.

* Includes 291,253 coke oven underfiring in 1976, 251,408 in 1977, 229,265 in 1978, 247,958 in 1979, and 214,946 in 1980.
‡ Includes heating ovens for wire rods.

† Included with "Other".

TABLE 39—PRODUCTION, RECEIPTS, CONSUMPTION AND SHIPMENTS OF COKE BY THE IRON AND STEEL INDUSTRY

(Thousands of net tons)

	1980	1979	1978	1977	1976
Production:					
Metallurgical	41,845	48,221	44,643	47,788	52,673
Other coke	283	288	412	320	490
Total Production	42,128	48,509	45,055	48,108	53,163
Receipts, incl. imports	4,103	7,972 R	6,520	4,956	6,208
TOTAL PRODUCTION AND RECEIPTS	46,231	56,481	51,575	53,064	59,371
Consumption:					
Blast furnaces	39,146	50,008	51,286	48,510	51,561
Foundries	49	119	114	84	34
Other uses	81	112 R	577	414	347
Total Consumption	39,276	50,239	51,977	49,008	51,942
Shipments to other outside companies	4,232	3,487 R	3,430	3,563	2,068
TOTAL CONSUMPTION AND SHIPMENTS	43,508	53,726	55,407	52,571	54,010

TABLE 40—IRON ORE RECEIPTS AND CONSUMPTION
1980

(Thousands of net tons)

	Original Source of Iron Ore							
	United States				Canada			
	Great Lakes (a)	North-eastern (b)	Southern (c)	Western (d)	Great Lakes (e)	Eastern (f)	All Other Foreign Countries	Total Iron Ore
Receipts at plants	59,828	...	2,107	7,120	1,239	18,388	8,969	97,651
Consumption in:								
Blast furnaces	57,472	...	2,070	5,795	1,141	11,552	4,195	82,225*
Steel producing furnaces	59	...	...	123	...	53	307	542
Agglomerating plants (g)	2,927	...	4	1,300	391	6,174	6,418	17,214
Total Consumption	60,458	...	2,074	7,218	1,532	17,779	10,920	99,981

(a) Michigan, Minnesota, Wisconsin.
(b) New England states, New York, Pennsylvania.
(c) Florida, Alabama, Georgia, New Mexico, Tennessee, Texas, Virginia.
(d) California, Nevada, Arizona, Colorado, Montana, Washington.
(e) Ontario.
(f) Quebec, Newfoundland, Nova Scotia, Labrador, New Brunswick, Prince Edward Island.
(g) Represents plants at other than mine locations.
* Includes 75,061,000 N.T. of agglomerates produced at or near mine site.

TABLE 45—CONSUMPTION OF ELECTRIC POWER BY THE IRON AND STEEL INDUSTRY

(Millions of kilowatt hours)

Year	Generated	Purchased	Total
1980	8,744	43,585	52,329
1979	9,282	50,693	59,976
1978	9,349	48,224	57,573
1977	9,570	44,454	54,024
1976	10,002	44,300	54,302

TABLE 46—CONSUMPTION OF OXYGEN BY THE IRON AND STEEL INDUSTRY

(Millions of cubic feet in gaseous form)

	1980	1979	1978	1977	1976
Purchased (a)	192,264	244,926	246,288	222,883	225,305
Produced (b)	22,182	26,109	28,673	28,323	27,108
TOTAL	214,446	271,035	274,961	251,206	252,413
Used in:					
Conditioning	13,161	17,235	17,548	17,615	16,912
Scrap preparation	1,635	2,090	2,016	1,715	1,494
Other burning and welding	4,273	5,249	7,384	4,364	3,360
Blast furnaces	23,007	35,058	35,641	28,897	26,912
Steelmaking:					
Open hearth	20,626	28,894	34,432	32,228	40,624
Basic oxygen process	130,906	160,602	158,985	150,357	149,239
Electric	11,485	12,915	10,310	7,665	6,400
Total Steelmaking	163,017	202,411	203,727	190,250	196,263
Maintenance and construction	866	1,510	1,218	1,054	1,129
All other	8,487	7,482	7,427	7,311	6,343
TOTAL	214,446	271,035	274,961	251,206	252,413

(a) Purchased from vendors with facilities in or adjacent to plant or facilities located away from plant.
(b) Produced on companies own facilities or leased facilities.
NOTE: Oxygen consumed in liquid form was reduced to its gaseous equivalent in these statistics.

CANADIAN STATISTICS

Pig Iron and Ferroalloys Production
Materials Consumed by Blast Furnaces
Raw Steel Production
Shipments of Rolled Steel Products
Imports and Exports
Basic Materials
Pig Iron Consumption

TABLE 50—PRODUCTION OF PIG IRON AND FERROALLOYS

(Net tons)

Year	Pig Iron			Ferro-alloys	Total
	Basic	All Other	Total		
1980	11,040,417	966,650	12,007,067	318,901	12,325,968
1979	11,464,845	556,588	12,021,433	192,462	12,213,895
1978	10,486,271	909,717	11,395,988	265,042	11,661,030
1977	10,030,103	619,244	10,649,347	213,140	10,862,487
1976	10,104,675	698,554	10,803,229	247,997	11,051,226
1975	9,466,064	620,079	10,086,143	176,359	10,262,502
1974	9,564,449	821,857	10,386,306	273,306	10,659,612
1973	9,627,429	883,565	10,510,994	223,367	10,734,361
1972	8,510,470	853,423	9,363,893	250,694	9,614,587
1971	7,835,632	780,124	8,615,756	212,683	8,828,439

Source: Statistics Canada.

TABLE 51—MATERIALS CONSUMED BY BLAST FURNACES IN THE PRODUCTION OF PIG IRON

Year	Net Tons			Consumption per Ton of Pig Iron		
	Ore, Cinder, etc.	Limestone	Coke	Ore, Cinder, etc.	Limestone	Coke
1980	17,372,626	345,971	5,343,851	1.447	0.029	0.445
1979	18,601,580	469,846	5,458,170	1.547	0.039	0.454
1978	17,215,864	430,699	4,925,123	1.511	0.038	0.432
1977	15,490,321	361,054	4,798,210	1.455	0.034	0.451
1976	15,098,856	818,426	5,131,274	1.398	0.076	0.475
1975	14,161,402	963,125	4,951,237	1.404	0.095	0.491
1974	14,644,037	897,380	5,027,821	1.410	0.086	0.484
1973	15,288,419	950,600	5,109,092	1.455	0.090	0.486
1972	13,350,050	922,373	4,554,183	1.426	0.099	0.486
1971	12,509,832	893,583	4,262,731	1.452	0.104	0.495

Source: Statistics Canada.

TABLE 52—RAW STEEL PRODUCTION

(Net tons)

Year	Open Hearth	Basic Oxygen Process	Electric	Total	Steel for Castings * Incl. in Total	Alloy Steel Incl. in Total
1980	3,583,430	9,669,217	4,275,473	17,528,120	239,495	2,231,062
1979	3,632,219	10,048,152	4,042,636	17,723,007	246,203	2,458,253
1978	3,338,969	9,274,452	3,809,307	16,422,728	187,936	2,039,373
1977	3,174,390	8,766,492	3,084,991	15,025,873	164,353	1,864,649
1976	3,275,098	8,758,757	2,615,367	14,649,222	183,563	1,754,172
1975	3,394,143	8,052,297	2,911,028	14,357,468	239,312	1,437,835
1974	3,775,659	8,106,525	3,135,094	15,017,278	221,838	1,686,879
1973	4,608,197	7,433,896	2,713,286	14,755,379	206,159	1,597,596
1972	5,164,585	5,601,287	2,307,001	13,072,873	181,067	1,243,621
1971	10,265,803	†	1,698,429	11,964,232	205,320	1,046,502

* Includes only that portion of the steel for castings which was produced in foundries operated by companies producing steel ingots.
† Included with open hearth.
Source: Statistics Canada.

TABLE 47—IMPORTS OF IRON ORE BY COUNTRIES

(Thousand gross tons)
Source: Bureau of Mines

Country	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
Australia	*	183	264	305	617	803	638	464	687	1,008
Brazil	1,995	3,095	3,979	2,243	5,388	7,526	6,572	3,183	1,115	1,772
Canada	17,311	22,602	19,236	25,283	24,962	19,111	19,702	21,628	18,168	20,342
Chile	322	245	390	566	608	931	296	205	308	878
Liberia	1,590	2,190	2,170	1,791	2,153	2,496	2,730	2,734	2,761	1,838
Mauritania	...	...	...	...	...	...	...	47	40	...
Peru	193	456	818	1,021	716	1,551	1,810	1,501	1,318	1,063
Sweden	33	171	256	154	441	182	335	274	273	178
Venezuela	3,602	4,564	6,083	6,179	9,001	13,137	15,378	13,148	10,926	12,953
Other	12	270	420	363	504	1,005	568	112	165	92
Total	25,058	33,776	33,616	37,905	44,390	46,742	48,029	43,296	35,761	40,124

* Less than 500 tons.

TABLE 48—IMPORTS FOR CONSUMPTION OF MANGANESE ORE BY COUNTRIES (35 PERCENT OR MORE MN)*

(Mn content—Net tons)

(*Source:* Bureau of Mines, Department of Interior)

Countries	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
Angola	...	...	...	...	...	...	...	...	17,160	27,603
Australia	106,043	55,316	32,598	13,834	117,367	86,542	98,142	61,458	40,261	52,630
Brazil	33,648	51,660	52,095	111,639	161,108	307,367	221,999	299,403	192,825	334,850
Gabon	79,858	48,119	120,962	245,221	269,698	244,795	150,116	193,720	236,819	305,589
Ghana	...	...	...	...	...	...	4,531	18,600	22,062	37,815
India	...	...	...	...	...	...	...	...	12,401	1,283
Mexico	22,384	2,060	18,355	34,882	18,485	23,172	16,431	40,666	33,643	12,986
Morocco	2,843	10,719	14,522	17,070	18,687	...	27,505	13,922	13,935	12,730
Republic of South Africa	86,373	41,475	NA	16,882	60,963	92,210	32,909	55,921	68,849	87,358
Zaire	...	...	13,231	14,700	2,937	11,444	25,291	35,656	138,878	52,834
Other Countries	...	22,460	9,472	...	...	...	...	354	16,765	12,444
TOTAL	331,149	231,809	267,235	454,228	649,245	765,530	576,924	719,700	793,598	938,122

* Comprises ore received during the year for immediate consumption plus material withdrawn from bonded warehouses; excludes imports for manufacture in bond and export.

TABLE 49—IRON ORE SHIPMENTS THROUGH GREAT LAKES

(Thousands of gross tons)

Source: American Iron Ore Association

Shipments	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
By Ports:										
Superior	10,146	13,674	12,515	7,742	6,145	6,609	10,004	11,951	10,172	11,000
Duluth	13,263	15,039	13,568	10,687	14,050	14,385	17,832	17,941	14,866	14,222
Two Harbors	10,010	11,124	9,477	3,201	7,506	8,557	9,014	7,803	6,129	4,405
Marquette	5,721	5,332	6,003	3,990	5,436	4,588	2,867	3,392	3,062	3,416
Escanaba	9,724	11,816	11,434	7,890	10,061	9,383	8,220	8,747	9,357	8,359
Silver Bay	4,399	8,267	9,610	4,449	9,694	8,971	10,399	10,878	9,481	9,466
Taconite Harbor	6,097	9,467	8,752	3,501	10,254	10,114	10,456	13,104	10,583	9,220
Michipicoten (Canada)	...	...	...	...	74	30	81	165	142	87
Depot Harbor (Canada)	...	227	675	573	622	662	686	725	683	681
Little Current (Canada)	...	...	306	608	375	496	582	512	522	471
Picton (Canada)	...	...	43	598	451	272	392	464	460	4,317
Thunder Bay (Canada)	2,679	3,801	4,395	4,695	4,127	3,976	4,889	5,152	4,691	638
Point Noire (Canada)	4,319	5,149	3,608	5,108	5,053	2,989	3,915	3,935	...	...
Port Cartier (Canada)	1,716	2,685	2,592	3,842	4,834	2,968	1,921	2,481	...	...
Seven Islands (Canada)	4,555	5,473	5,918	10,166	7,965	6,267	6,320	7,295	...	...
TOTAL	72,629	92,054	88,896	67,050	86,647	80,267	87,578	94,545	70,148	66,282

TABLE 54—IMPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1980	1979	1978	1977	1976
Steel Mill Products:					
Ingots, blooms, billets, etc.	115,347	198,681	59,431	67,601	24,634
Wire rods	117,388	183,251	209,824	193,814	173,376
Structural shapes (plain 3" and over)	197,630	263,138	120,158	188,981	187,121
Sheet piling	13,784	17,582	24,640	19,489	18,012
Plates	252,833	463,675	296,247	233,923	215,982
Rails and track accessories	32,723	22,744	30,459	28,930	26,711
Concrete reinforcing bars	8,970	24,845	26,554	28,833	49,285
Bar shapes under 3"	10,336	17,173	16,864	28,675	50,451
Bars—Hot rolled—Carbon	37,510	67,329	51,673	53,025	66,980
—Alloy	27,249	33,337	41,911	35,381	31,615
—Cold finished	13,644	18,716	17,841	17,180	11,804
Pipe and tubing	355,049	311,898	344,495	224,403	186,436
Wire drawn	38,830	67,129	63,444	70,812	62,885
Barbed wire	1,272	5,087	1,509	1,687	1,298
Wire nails	13,294	19,147	17,472	16,950	18,850
Tin plate	2,132	1,647	1,579	1,898	2,048
Terne plate	13,052	20,674	16,869	18,622	16,580
Sheets—Hot rolled	152,343	289,771	166,321	110,224	75,815
—Cold rolled	75,695	151,936	114,830	97,198	38,748
Sheet & strip (Coated, incl. galvanized)	65,840	147,881	105,871	88,816	89,275
All other sheet and strip	51,173	40,202	38,543	31,686	20,544
Total Steel Mill Products	1,596,094	2,365,851	1,766,535	1,558,128	1,368,450
Other Steel Products:					
Steel castings and forgings	19,189	17,900	15,801	14,168	15,692
Bars and rods, fabricated	4,196	3,831	3,538	3,695	3,784
Plates, flanged and dished	5,073	4,308	4,475	3,833	2,692
Plates, sheets and strip for saws	9,290	9,684	8,275	6,163	5,874
Plates, fabricated	7,761	8,497	4,710	6,894	13,769
Sheet and strip, fabricated	5,977	8,018	4,632	6,562	6,464
Structural shapes, fabricated	6,502	6,265	5,075	11,752	11,644
Wire strand	1,952	3,284	2,914	10,513	9,359
Wire rope	15,857	15,043	11,963	15,151	12,099
Grinding balls	8,851	10,168	12,012	17,773	9,113
Total Other Steel Products	84,648	86,998	73,395	96,504	90,490
Total Steel Products	1,680,742	2,452,849	1,839,930	1,654,632	1,458,940
Iron Products and Ferroalloys:					
Pig iron	2,287	10,927	2,817	13,132	9,740
Sponge iron	4,270	5,762	4,437	4,375	4,265
Castings and forgings	19,544	33,348	19,968	29,788	35,067
Pipe and tubes, cast iron	1,025	1,570	750	888	522
Ferroalloys	107,587	160,553	94,028	97,856	104,212
Total Iron Products and Ferroalloys	134,713	212,160	122,000	146,039	153,806
GRAND TOTAL	1,815,455	2,665,009	1,961,930	1,800,671	1,612,746

Source: Statistics Canada.

TABLE 55—EXPORTS OF IRON AND STEEL PRODUCTS

(Net tons)

Products	1980	1979	1978	1977	1976
Steel Mill Products:					
Ingots, blooms, billets, slabs, etc.	360,988	133,094	308,066	264,311	143,254
Wire rods	597,284	390,222	344,959	215,293	182,352
Structural shapes and piling	330,038	368,132	356,988	228,232	145,332
Plates	374,748	334,580	303,398	249,788	182,383
Rail and track accessories	279,652	256,953	215,522	151,619	182,738
Bars—Hot rolled	320,232	170,622	150,781	92,371	47,356
—Cold finished	9,323	5,073	5,047	4,780	2,968
Pipe and tubing	398,392	449,106	381,745	282,516	301,573
Wire, plain and coated	94,984	85,595	87,418	66,731	46,234
Wire nails	81,725	78,687	76,496	74,156	56,163
Sheets and strip	866,861	504,614	591,133	556,012	570,860
Sheets and strip—Galvanized	182,966	163,892	212,126	169,791	117,301
Total Steel Mill Products	3,896,293	2,939,570	3,033,679	2,355,600	1,978,514
Other Steel Products:					
Bars and rods, fabricated	7,563	7,453	9,934	7,603	4,301
Grinding balls	9,509	18,725	12,818	9,915	13,635
Castings and forgings	50,847	70,022	57,850	55,257	58,204
Wire rope and strand	9,611	7,137	5,684	3,353	3,965
Total Other Steel Products	77,530	103,337	86,286	76,128	80,105
Total Steel Products	3,973,823	3,042,907	3,119,965	2,431,728	2,058,619
Iron Products and Ferroalloys:					
Pig iron	619,886	281,666	600,447	556,973	310,364
Sponge iron	196,550	152,479	63,273	57,223	114,215
Iron castings	85,728	121,050	139,863	167,763	164,437
Pipe and tubes, cast iron	30,120	8,933	13,918	7,448	7,052
Ferroalloys	76,805	65,975	99,150	77,594	50,500
Total Iron Products and Ferroalloys	1,009,089	630,103	916,651	867,001	646,568
GRAND TOTAL	4,982,912	3,673,010	4,036,616	3,298,729	2,705,187

Source: Statistics Canada.

TABLE 56—CONSUMPTION OF COAL BY USES

(Net tons)

Year	In production of		Other Purposes	Total
	Coke	Steam		
1980	7,623,838	D	D	7,626,767
1979	7,687,527	...	...	7,687,527
1978	7,527,603	D	D	7,531,575
1977	7,267,972	D	D	7,269,273
1976	7,921,648	D	D	7,922,833
1975	7,698,485	D	D	7,699,783
1974	7,866,210	D	D	7,868,740
1973	7,744,613	D	D	7,751,153
1972	6,396,711	D	D	6,406,537
1971	6,194,969	44,908	1,487	6,241,364

TABLE 57—CONSUMPTION OF COKE BY USES

(Net tons)

Year	In Blast Furnaces *	In Foundries	Other Uses	Total
1980	5,122,768	D	D	5,125,734
1979	4,859,435	D	D	4,862,653
1978	4,906,438	D	D	4,908,487
1977	4,837,976	D	D	4,839,327
1976	5,131,134	D	D	5,132,949
1975	4,952,868	D	D	4,997,294
1974	5,020,324	D	D	5,022,952
1973	5,108,794	D	D	5,114,705
1972	4,664,389	D	D	4,669,005
1971	4,373,626	D	D	4,378,594

* Blast furnaces producing pig iron and ferroalloys.

TABLE 58—CONSUMPTION OF FUEL OIL BY USES

(Thousands of gallons)

Year	In Melting Furnaces	In Heating and Annealing Furnaces	Other Purposes	Total
1980	145,451	21,088	17,030	183,569
1979	162,770	25,779	5,647	194,196
1978	191,621	30,317	15,145	237,083
1977	158,013	30,111	8,356	196,480
1976	110,254	33,239	9,443	152,936
1975	98,691	28,132	12,813	139,636
1974	117,927	30,321	14,568	162,816
1973	105,221	32,491	18,189	155,901
1972	117,284	37,955	21,024	176,263
1971	136,401	44,160	24,603	205,164

TABLE 59—CONSUMPTION OF FLUXES IN STEELMAKING FURNACES

(Net tons)

Year	Fluorspar	Limestone	Lime	Other Fluxes	Total
1980	38,017	111,846	764,419	121,055	1,035,337
1979	33,239	129,620	820,607	131,599	1,115,065
1978	36,839	106,591	801,223	146,925	1,091,578
1977	30,373	89,684	755,408	144,546	1,020,011
1976	26,098	113,352	809,958	99,022	1,048,430

TABLE 60—CONSUMPTION OF OXYGEN BY THE IRON AND STEEL INDUSTRY

(Millions of cubic feet in gaseous form)

	High * and Low Purity				
	1980	1979	1978	1977	1976
Purchased (a) Produced (b)	32,403	34,295	31,502	29,504	31,175
TOTAL	32,403	34,295	31,502	29,504	31,175
Consumption By Uses:					
Conditioning	2,021	2,341	2,177	1,973	1,708
Scrap preparation	345	388	379	346	232
Other burning and welding	182	214	258	161	159
Blast furnaces	5,077	6,763	4,601	4,422	5,783
Steelmaking:					
Open hearth	6,005	4,329	5,294	5,147	5,351
Basic oxygen process & Electric	18,061	18,801	17,400	16,717	16,988
Total steelmaking	24,066	23,130	22,694	21,864	22,339
Maintenance & construction	22	20	23	21	24
All other	690	1,439	1,370	717	930
TOTAL	32,403	34,295	31,502	29,504	31,175

* The term high purity oxygen means a gaseous mixture containing 99.5% by volume, plus or minus 0.1% of pure oxygen.

(a) Purchased from vendors with facilities in or adjacent to plant or facilities located away from plant.

(b) Produced on companies own facilities or leased facilities.

NOTE: Oxygen consumed in liquid form was reduced to its gaseous equivalent in these statistics.

TABLE 61—PIG IRON CONSUMPTION

(Net tons)

Year	Steelmaking	Other Than Steelmaking	Total
1980	10,917,000	285,000	11,202,000
1979	11,220,477	227,068	11,447,545
1978	10,280,290	331,408	10,611,698
1977	10,012,665	129,505	10,142,170
1976	10,007,407	130,755	10,138,162

WORLD STATISTICS

The following tables covering production of foreign countries were compiled from reports issued by the Bureau of Mines of the United States Department of the Interior, Statistisches Bundesamt, Aussenstelle Dusseldorf, Eisen-und Stahlstatistik, and other Sources.

Iron Ore, Concentrates and Agglomerates Production

Pig Iron Production

Raw Steel Production

TABLE 62—WORLD PRODUCTION OF IRON ORE,

(Thousands of

Countries	1980 P	%	1979 P	%	1978 P	%	1977	%	1976	%
North America										
United States	69,325	...	85,716	10.2	81,583	10.3	55,750	6.7	79,264	9.3
Canada	50,062	...	58,675	7.0	38,996	4.9	52,774	6.4	54,541	6.4
Total	119.387	...	144,391	17.2	120,579	15.2	108,524	13.1	133,805	15.7
Latin America										
Argentina			...	...	689	...	710	...	246	...
Brazil			58,734	...	56,607	...	75,314	...	66,033	...
Chile			10,874	...	9,311	...	7,655	...	10,219	...
Colombia			354	...	418	...	466	...	591	...
Mexico			6,885	...	3,386	...	7,348	...	3,445	...
Peru			5,315	...	5,905	...	6,092	...	6,889	...
Venezuela			16,082	...	13,779	...	13,467	...	22,637	...
Total			98,244	11.7	90,095	11.4	111,052	13.4	110,060	12.9
Europe										
Western Europe										
EEC										
Belgium			...	...	42	...	46	...	62	...
France			31,461	...	33,243	...	36,427	...	44,824	...
Denmark			...	...	12	...	5	...	8	...
Italy			246	...	429	...	567	...	637	...
Luxembourg			620	...	1,513	...	822	...	2,046	...
West Germany			1,633	...	1,583	...	2,824	...	2,986	...
United Kingdom			4,202	...	4,173	...	3,686	...	4,511	...
Total EEC			38,162	4.5	40,995	5.2	44,377	5.4	55,074	6.5
Other Western Europe										
Austria			3,149	...	2,744	...	3,396	...	3,725	...
Finland			761	...	920	...	1,030	...	1,042	...
Greece			1,807	...	1,486	...	2,017	...	2,172	...
Norway			4,183	...	3,583	...	3,665	...	3,859	...
Portugal			54	...	51	...	51	...	47	...
Spain			8,345	...	7,972	...	7,774	...	7,783	...
Sweden			26,200	...	21,148	...	25,015	...	29,390	...
Turkey			1,358	...	2,116	...	1,673	...	1,743	...
Yugoslavia			4,606	...	4,527	...	4,381	...	4,193	...
Total Other W. Europe			50,463	6.0	44,547	5.6	49,002	5.9	53,954	6.3
Total W. Europe			88,625	10.5	85,542	10.8	93,379	11.3	109,028	12.8
Eastern Europe (Red Bloc)										
Bulgaria			2,070	...	2,411	...	2,234	...	2,279	...
Czechoslovakia			1,983	...	2,018	...	1,963	...	1,874	...
East Germany			83	...	81	...	65	...	58	...
Hungary			515	...	526	...	517	...	594	...
Poland			394	...	556	...	649	...	663	...
Rumania			2,461	...	2,461	...	2,707	...	2,756	...
U.S.S.R.			242,116	...	236,998	...	235,931	...	235,333	...
Total E. Europe			249,622	29.8	245,051	30.8	244,066	29.5	243,557	28.5
Total Europe			338,247	40.3	330,593	41.6	337,445	40.8	352,585	41.3

NOT AVAILABLE

CONCENTRATES AND AGGLOMERATES BY COUNTRIES

gross tons)

Countries	1980 P	%	1979 P	%	1978 P	%	1977	%	1976	%
Africa										
Algeria			3,071	...	2,756	...	2,756	...	3,149	...
Angola			...	...	4,921	...	4,921	...	5,413	...
Liberia			19,558	...	18,208	...	17,913	...	26,574	...
Mauritania			10,039	...	9,842	...	9,645	...	8,366	...
Morocco			53	...	98	...	401	...	436	...
Zimbabwe			591	...	591	...	541	...	591	...
Sierra Leone			...	...	1,476	...	1,476	...	1,575	...
South Africa, Republic of			31,062	...	23,218	...	25,818	...	15,437	...
Swaziland			...	...	1,476	...	1,945	...	1,901	...
Tunisia			388	...	320	...	338	...	486	...
Total			64,762	7.7	62,906	7.9	65,754	8.0	63,928	7.5
Middle East										
Iran			...	...	591	...	591	...	620	...
United Arab Republic (Egypt)			1,476	...	1,250	...	1,402	...	1,223	...
Total			1,476	0.2	1,841	0.2	1,993	0.2	1,843	0.2
Far East										
Hong Kong			30	...	30	...	36	...	30	...
India			38,419	...	32,971	...	41,604	...	41,973	...
Japan			453	...	596	...	673	...	744	...
Malaysia			344	...	310	...	321	...	304	...
Philippines			...	...	591	...	591	...	1,329	...
South Korea			449	...	689	...	647	...	612	...
Thailand			94	...	59	...	62	...	24	...
Total			39,789	4.8	35,246	4.4	43,928	5.3	45,022	5.2
Far East (Red Bloc)										
China			68,895	...	63,974	...	54,132	...	47,242	...
North Korea			...	...	8,858	...	8,267	...	8,071	...
Total			68,895	8.2	72,832	9.2	62,399	7.6	55,313	6.5
Oceania										
Australia			82,852	9.9	80,371	10.1	95,926	11.6	91,650	10.7
TOTAL WORLD			838,656	100.0	794,463	100.0	827,021	100.0	854,206	100.0

NOT AVAILABLE

Source: United States—Bureau of Mines; other countries—Statistical Quarterly Report for Iron and Steel Industry, Statistisches Bundesamt, Aussenstelle Düsseldorf, Eisen-und Stahlstatistik.

NOTE: 1980 preliminary data for foreign countries was not available at the time this Report went to press.

WORLD
Pig Iron

TABLE 63—WORLD PRODUCTION

(Thousands of

Countries	1980 P	%	1979 R	%	1978	%	1977	%	1976	%
North America										
United States	68,721	12.3	87,003	14.9	87,679	15.7	81,328	15.2	86,870	16.2
Canada	12,007	2.2	12,021	2.1	11,396	2.0	10,649	2.0	10,803	2.0
Total	80,728	14.5	99,024	17.0	99,075	17.7	91,977	17.2	97,673	18.2
Latin America										
Argentina	2,017		2,113		2,005		1,213		1,420	
Brazil	14,275		12,797		11,368		10,788		9,295	
Chile	744		674		594		476		444	
Colombia	298		266		327		246		315	
Mexico	5,732		5,530		5,661		4,772		3,877	
Peru	320		283		271		269		249	
Venezuela	2,149		1,468		759		548		464	
Total	25,535	4.6	23,131	4.0	20,985	3.8	18,312	3.4	16,064	3.0
Europe										
Western Europe										
EEC										
Belgium	10,853		11,878		11,164		9,898		10,980	
Luxembourg	3,933		4,190		4,102		3,933		4,140	
France	21,134		21,401		20,389		20,125		20,970	
Italy	13,463		12,564		12,572		12,648		12,893	
Netherlands	4,772		5,306		5,085		4,323		4,701	
West Germany	37,338		38,765		33,232		31,922		35,107	
United Kingdom	7,109		14,217		12,604		13,667		15,456	
Total EEC	98,602	17.7	108,321	18.6	99,148	17.7	96,516	18.0	104,247	19.4
Other Western Europe										
Austria	3,842		4,081		3,395		3,268		3,659	
Finland	2,265		2,246		2,048		1,944		1,465	
Greece	441		441		661					
Norway	683		718		613		604		713	
Portugal	389		400		389		394		379	
Spain	7,028		7,114		6,867		7,391		7,304	
Sweden	2,671		3,204		2,605		2,568		3,254	
Switzerland	39		39		39		30		25	
Turkey	2,469		1,924		1,102		1,500		1,338	
Yugoslavia	2,646		2,610		2,294		2,126		2,115	
Total Other W. Europe	22,473	4.0	22,777	3.9	20,013	3.6	19,825	3.7	20,252	3.8
Total Western Europe	121,075	21.7	131,098	22.5	119,161	21.3	116,341	21.7	124,499	23.2

OF PIG IRON BY COUNTRIES

net tons)

Countries	1980 P	%	1979 R	%	1978	%	1977	%	1976	%
Eastern Europe										
(Red Bloc)										
Bulgaria	1,709		1,601		1,646		1,779		1,717	
Czechoslovakia	10,582		10,505		10,961		10,709		10,444	
East Germany	2,646		2,601		2,822		2,900		2,787	
Hungary	2,590		2,611		2,568		2,520		2,448	
Poland	11,023		12,240		12,384		10,637		8,858	
Rumania	10,031		9,787		8,989		8,267		7,330	
U.S.S.R.	120,151		120,148		122,027		118,352		116,165	
Total Eastern Europe	158,732	28.4	159,493	27.3	161,397	28.9	155,164	28.9	149,749	27.8
Total Europe	279,807	50.1	290,591	49.8	280,558	50.2	271,505	50.6	274,248	51.0
Africa										
Zimbabwe	441		331		331		353		331	
South Africa, Republic of	7,876		7,750		6,534		6,717		6,388	
Algeria	441		437		441		165		165	
Tunisia	165		170		165		165		119	
Total	8,923	1.6	8,688	1.5	7,471	1.3	7,400	1.4	7,003	1.3
Middle East										
Iran	165		220		276					
United Arab Republic (Egypt)	661		661		661		276	0.1	276	
Total	826	0.1	881	0.1	937	0.2	276	0.1	276	
Far East										
India	9,379		9,664		10,217		10,780		10,776	
Japan	95,944		92,400		86,629		94,672		95,433	
South Korea	6,148		5,581		3,021		2,674		2,218	
Taiwan	441		358		303		661		116	
Thailand	33		33		17		13		17	
Indonesia	220		204		50		35			
Total	112,165	20.1	108,240	18.6	100,237	17.9	108,835	20.3	108,560	20.2
Far East (Red Bloc)										
China	39,021		40,267		38,349		26,455		22,046	
North Korea	3,638		3,527		3,527		3,638		3,527	
Total	42,659	7.6	43,794	7.5	41,876	7.5	30,093	5.6	25,573	4.8
Oceania										
Australia	7,705	1.4	8,610	1.5	8,088	1.4	7,444	1.4	8,176	1.5
TOTAL WORLD	558,348	100.0	582,959	100.0	559,227	100.0	535,842	100.0	537,573	100.0

NOTE: Detail does not necessarily add to totals.
Source: United States—American Iron and Steel Institute; Canada—Statistics Canada. Other countries—Statistical Quarterly Report for Iron and Steel Industry, Statistisches Bundesamt, Aussenstelle Dusseldorf, Eisen-und Stahlstatistik.

TABLE 64—WORLD PRODUCTION OF

(Thousands

Countries	1980 P	%	1979 R	%	1978	%	1977	%	1976	%
North America										
United States	111,835	14.1	136,341	16.5	137,031	17.3	125,333	16.9	128,000	17.2
Canada	17,528	2.2	17,723	2.2	16,423	2.1	15,026	2.0	14,649	1.9
Total	129,363	16.3	154,064	18.7	153,454	19.4	140,359	18.9	142,649	19.1
Latin America										
Argentina	2,957	...	3,526	...	3,067	...	2,959	...	2,657	...
Brazil	16,875	...	15,314	...	13,454	...	12,306	...	10,200	...
Chile	817	...	708	...	679	...	621	...	554	...
Colombia	441	...	398	...	430	...	359	...	408	...
Cuba	331	...	331	...	331	...	331	...	331	...
Mexico	7,787	...	7,722	...	7,398	...	6,121	...	5,829	...
Peru	513	...	481	...	416	...	418	...	347	...
Venezuela	2,006	...	1,660	...	948	...	885	...	1,032	...
Others	128	...	123	...	80	...	87	...	32	...
Total	31,855	4.0	30,263	3.7	26,803	3.4	24,087	3.2	21,390	2.9
Europe										
Western Europe										
EEC										
Belgium-Luxembourg	18,673	...	20,272	...	19,170	...	17,178	...	18,420	...
Denmark	809	...	886	...	951	...	755	...	796	...
France	25,547	...	25,750	...	25,178	...	24,365	...	25,603	...
West Germany	48,325	...	50,750	...	45,474	...	42,972	...	46,752	...
Ireland	31	...	79	...	76	...	52	...	64	...
Italy	29,235	...	26,731	...	26,767	...	25,722	...	25,855	...
Netherlands	5,803	...	6,400	...	6,154	...	5,426	...	5,708	...
United Kingdom	12,502	...	23,725	...	22,451	...	22,561	...	24,761	...
Total EEC	140,925	17.8	154,593	18.7	146,221	18.5	139,031	18.8	147,959	19.9
Other Western Europe										
Austria	5,096	...	5,420	...	4,779	...	4,777	...	4,934	...
Finland	2,765	...	2,716	...	2,572	...	2,539	...	1,818	...
Greece	1,323	...	1,102	...	1,032	...	1,102	...	1,224	...
Norway	950	...	982	...	879	...	879	...	977	...
Portugal	726	...	739	...	689	...	586	...	508	...
Spain	13,968	...	13,501	...	12,499	...	12,312	...	12,106	...
Sweden	4,670	...	5,217	...	4,767	...	4,374	...	5,665	...
Switzerland	992	...	977	...	864	...	723	...	595	...
Turkey	2,657	...	2,641	...	2,394	...	2,056	...	2,174	...
Yugoslavia	4,008	...	3,897	...	3,810	...	3,508	...	3,032	...
Total Other W. Europe	37,155	4.7	37,192	4.5	34,285	4.3	32,856	4.4	33,033	4.4
Total Western Europe	178,080	22.5	191,785	23.2	180,506	22.8	171,887	23.2	180,992	24.3

RAW STEEL BY COUNTRIES

of net tons)

Countries	1980 P	%	1979 R	%	1978	%	1977	%	1976	%
Eastern Europe (Red Bloc)										
Bulgaria	2,756		2,736		2,722		2,853		2,712	
Czechoslovakia	16,314		16,333		16,859		16,594		16,196	
East Germany	7,716		7,743		7,690		7,551		7,430	
Hungary	4,409		4,309		4,274		4,104		4,026	
Poland	22,046		21,184		21,219		19,666		16,909	
Rumania	14,881		14,230		12,984		12,629		12,092	
U.S.S.R.	164,353		164,339		166,929		161,659		159,614	
Total Eastern Europe	232,475	29.3	230,874	28.0	232,677	29.5	225,056	30.3	218,979	29.4
Total Europe	410,555	51.8	422,659	51.2	413,183	52.3	396,943	53.5	399,971	53.7
Africa										
Zimbabwe	886		816		772		551		551	
Republic of South Africa	9,917		9,784		8,710		8,053		7,833	
Others	919		790		970		680		637	
Total	11,722	1.5	11,390	1.4	10,452	1.3	9,284	1.2	9,021	1.2
Middle East										
Egypt	882		882		661		661		551	
Israel	118		118		104		79		77	
Iran	1,323		1,576		1,433		716		661	
Other	624		624		201		56		17	
Total	2,947	0.4	3,200	0.4	2,399	0.3	1,512	0.2	1,306	0.2
Far East										
India	10,487		11,162		11,132		11,033		10,322	
Japan	122,791		123,180		112,551		112,882		118,370	
South Korea	9,433		8,389		5,477		4,677		3,875	
Taiwan	4,657		4,685		3,783		1,951		1,795	
Others	2,006		1,895		1,817		1,179		1,334	
Total	149,374	18.9	149,311	18.1	134,760	17.1	131,722	17.8	135,696	18.2
Far East (Red Bloc)										
China	40,829		38,007		35,031		25,794		23,149	
North Korea	6,393		5,952		5,600		3,472		3,307	
Total	47,222	6.0	43,959	5.3	40,631	5.1	29,266	4.0	26,456	3.5
Oceania										
Australia	8,371		8,950		8,373		8,084		8,591	
New Zealand	254		252		248		240		236	
Philippines	441		438		304		331		276	
Total	9,066	1.1	9,640	1.2	8,925	1.1	8,655	1.2	9,103	1.2
Total Free World	512,407	64.7	549,653	66.7	517,299	65.4	487,506	65.7	500,157	67.1
Total Red Bloc	279,697	35.3	274,833	33.3	273,308	34.6	254,322	34.3	245,435	32.9
TOTAL WORLD	741,828	100.0	824,486	100.0	790,607	100.0	741,828	100.0	745,592	100.00

NOTE: United States data excludes steel shipped by foundries which reported their output to the Bureau of Census, but did not report to American Iron and Steel Institute as follows: 1980—1,844 P; 1979—2,039 R; 1978—1,857; 1977—1,717; 1976—1,804; (in thousands of net tons).

TABLE 53—NET SHIPMENTS OF ROLLED STEEL PRODUCTS

(Net tons)

Products	1980	1979	1978	1977	1976	1975	1974	1973	1972	1971
Ingots and semifinished shapes	897,005	551,343	671,919	640,276	490,926	399,575	500,995	388,853	323,935	448,723
Rails and heavy structural shapes *	862,691	380,919	290,724	350,445	388,751	371,546	316,981	301,986	170,176	297,618
Wire Rods	1,363,294	1,257,889	1,100,126	863,872	804,085	630,822	858,111	801,185	690,256	611,396
Structural shapes intermediate **	458,798	919,602	891,647	668,854	563,104	600,274	654,242	636,369	636,597	557,592
Bar sized shapes	177,693	230,484	215,002	156,311	119,354	126,212	150,182	164,204	151,696	144,220
Concrete reinforcing bars	843,294	584,086	633,338	545,742	534,280	611,461	772,052	757,391	707,126	755,645
Other hot rolled bars	1,105,299	1,343,722	1,260,283	1,098,700	1,011,897	950,446	1,073,099	1,048,969	894,165	799,877
Tie plates and track material	87,256	79,021	70,312	75,072	80,420	87,221	77,818	55,673	67,664	83,765
Plates (Incl. plates for pipe & tube)	1,954,672	1,874,681	1,636,158	1,253,259	1,163,917	1,605,522	1,412,697	1,345,722	1,285,260	1,174,222
Hot rolled sheets	2,557,134	2,818,510	2,728,914	2,691,196	2,700,730	2,458,085	2,504,116	1,925,619	1,743,331	1,384,203
Hot rolled strip								543,760	444,018	396,506
Cold finished bars	108,224	130,704	108,942	93,973	84,046	88,044	102,812	98,415	82,334	68,799
Cold reduced sheets and strip, cold rolled other	2,037,874	2,134,726	2,107,878	1,955,483	1,945,350	1,678,624	2,044,330	1,956,939	1,845,192	1,788,716
Galvanized sheets	1,099,256	1,175,237	1,173,534	983,273	911,542	844,265	971,791	910,623	788,116	709,466
Total net shipments	13,552,490	13,480,924	12,888,777	11,376,457	10,798,402	10,452,097	11,439,226	10,935,708	9,829,866	9,220,748

Source: Statistics Canada.
* Prior to 1980, included only rails.
** Prior to 1980, included structural shapes and piling.

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TABLE 16—SHIPMENTS OF STEEL PRODUCTS BY MARKET CLASSIFICATION—1980
ALL GRADES (INCLUDING CARBON, ALLOY AND STAINLESS)

(Net tons)

Products	Steel for Converting and Processing: Total Shipments	Steel for Converting and Processing: Less Shipments to Reporting Companies	Steel for Converting and Processing: Net Shipments	Independent Forgings (Not elsewhere classified)	Industrial Fasteners	Steel Service Centers and Distributors	Construction Including Maintenance	Contractors' Products	Automotive	Rail Transportation	Shipbuilding and Marine Equipment	Aircraft and Aerospace	Oil and Gas Industry	Mining, Quarrying and Lumbering	Agricultural	Machinery, Industrial Equipment and Tools	Electrical Equipment	Appliances, Utensils, and Cutlery	Other Domestic and Commercial Equipment	Containers, Packaging and Shipping Materials	Ordnance and Other Military	Export (Reporting Companies Only)	Non-classified Shipments	Total	%
Ingots, blooms, billets, slabs, sheet bars and tube rounds	419,729	139,676	280,053	515,408	624	135,967	129,270	1,675	206,036	12,170	...	14,950	57,990	824	3,435	172,454	384	3	5,832	44,088	58,984	602,850	386,805	2,629,802	3.2
Skelp	95,460	71,896	23,564	...	...	...	21	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	23,586	...
Wire rods	1,307,915	290,733	1,017,182	22	150,415	38,709	59,482	85,309	65,056	...	50	72	130	4,348	17,222	412,416	1,054	241	171,916	1,440	4	183,852	479,319	2,688,239	3.2
Structural shapes (3" & over)	1,775	239	1,536	...	...	1,173,964	2,271,209	26,668	36,013	309,935	156,586	556	75,816	15,244	24,041	183,534	7,204	104	3,860	634	486	110,650	462,991	4,861,031	5.8
Steel piling	24	...	24	...	...	62,357	277,633	...	...	1,923	2,279	...	107	430	...	...	...	...	...	...	...	1,406	...	346,159	0.4
Plates	72,238	21,565	50,673	5,994	6,779	1,681,636	1,681,059	107,976	134,588	729,552	945,369	6,275	309,262	82,503	127,161	1,299,278	155,941	11,578	30,998	6,607	38,579	194,492	473,334	8,079,634	9.6
Rails	156	156	...	...	...	52,823	68,975	...	...	886,833	950	...	...	8,189	...	2,641	...	...	...	...	...	104,921	12,500	1,137,832	1.4
Rail Accessories	117	1	116	...	...	10,764	8,607	...	...	273,842	24	...	...	1,408	...	11	...	...	...	...	−3	3,290	8,745	306,804	0.3
Wheels (rolled and forged)	...	...	...	...	...	4,338	3,902	...	...	141,541	103	...	...	2,575	...	6,186	...	...	...	...	...	686	...	159,331	0.2
Axles	...	...	...	...	...	...	4,934	...	...	183,240	...	...	...	481	...	216	...	...	...	...	...	4,529	1	193,401	0.2
Bars—Hot rolled (including light shapes)	957,121	764,300	192,821	408,479	215,555	961,763	357,842	69,197	1,314,006	193,849	24,124	11,350	230,041	243,633	172,657	745,728	86,186	13,253	44,059	1,259	24,073	85,033	1,515,669	6,910,577	8.2
—Reinforcing	64,213	59,642	4,571	...	...	193,526	1,727,475	3,527	...	...	...	...	...	9,160	...	...	2,751	...	88	...	...	31,477	2,710,923	4,683,498	5.6
—Cold finished	4,581	186	4,395	1,482	23,757	406,067	3,874	19,546	143,717	3,457	2,807	4,837	9,218	5,404	42,302	287,533	21,778	12,926	22,421	23	8,396	6,927	554,356	1,585,223	1.9
Tool steel	919	801	118	793	36	12,919	579	...	...	9	...	110	...	15	...	4,232	5	75	2	16	6	65	59,675	78,655	0.1
Pipe and tubing—Standard	151,790	100,711	51,079	...	20	1,034,957	118,995	97,865	724	2,877	2,397	−22	190,671	3,818	6,104	20,872	122,434	677	17,298	44	...	47,603	54,770	1,773,183	2.1
—Oil country goods	177,464	151,603	25,861	...	...	308,288	3,690	269	...	...	...	...	3,179,891	...	...	...	...	...	...	...	...	44,846	48,806	3,611,651	4.3
—Line	5,014	3,254	1,760	...	...	513,911	79,055	2,978	...	88	24	...	1,016,911	567	1,096	2,570	466	...	636	2,835	63	22,921	146,617	1,792,498	2.1
—Mechanical	27,102	22,733	4,369	...	...	221,104	6,779	42,039	106,183	2,014	199	2,664	75,867	4,534	22,108	333,266	3,886	4,941	15,181	1,379	2,417	23,028	289,446	1,159,404	1.4
—Pressure	6,204	6,209	−5	...	...	50,117	1,605	1,562	24	75	451	3	5,217	1,271	...	43,894	129	...	1,016	4,264	65	3,707	35,742	149,137	0.2
—Structural	1,309	114	1,195	...	...	239,552	33,555	3,994	1,148	1,706	127	22	196,924	...	12,422	1,446	25,561	...	591	811	...	729	49,657	569,440	0.7
—Stainless	2,114	1,814	300	...	...	19,236	800	347	35	1	676	59	1,818	8	1	5,939	210	109	582	56	28	539	10,500	41,244	0.1
Wire—Drawn	298,529	19,517	279,012	...	86,323	164,148	225,083	108,970	42,091	1,745	135	61	550	3,814	7,054	90,324	15,819	20,881	154,975	27,846	3,094	3,951	155,879	1,391,755	1.7
—Nails and staples	2,645	385	2,260	...	...	122,480	43,430	...	13	165	5	...	...	55	166	1,463	315	...	43	564	19	2	2,059	173,039	0.2
—Other merchant wire products	2,794	114	2,680	...	...	125,088	43,605	128	328	514	...	...	...	328	10,047	4,326	7	...	41	1,875	1	117	14,302	203,387	0.2
Black plate	29,873	3,289	26,584	...	...	92,530	7,182	54,532	7,053	...	...	...	734	20	...	2,247	10,327	14,421	36,869	179,055	...	72,529	...	504,083	0.6
Tin plate	7,126	...	7,126	...	20	295,854	303	3,073	69,126	4	...	...	359	...	79	8,252	17,103	24,467	28,109	3,176,347	153	535,921	...	4,166,296	5.0
Tin free steel	29	...	29	...	...	24,458	9	285	1,903	...	...	...	...	...	...	1,582	1,096	−5	314	899,134	17	48,758	...	977,580	1.1
Tin Mill products—All other	209	...	209	...	...	10,592	217	781	40,215	...	...	...	...	10	...	822	436	2,524	2,439	956	...	2,135	...	61,336	0.1
Sheets—Hot rolled	2,611,937	1,065,420	1,546,517	118	69,715	3,348,724	700,230	509,187	3,559,994	371,648	60,485	1,879	6,373	55,985	389,539	410,843	283,787	112,326	177,748	268,565	7,041	254,196	961	12,115,861	14.5
—Cold rolled	524,542	39,361	485,181	66	9,972	2,980,360	85,419	768,678	4,708,505	4,853	929	3,638	8,689	1,358	72,091	267,754	1,087,392	1,192,799	805,305	732,790	15,497	81,377	30	13,312,683	15.9
Sheets and strip—Galvanized	51,090	8,731	42,359	...	12,266	1,580,775	637,659	1,156,162	1,028,257	8,860	772	179	574	802	239,664	48,678	94,863	222,770	114,283	33,896	4,261	16,879	...	5,243,959	6.2
—All other metallic coated	6,574	71	6,503	...	170	122,587	123,928	48,034	316,707	118	840	19	...	1,892	4,850	16,430	7,565	28,416	9,970	2,964	19	31,036	...	722,048	0.9
—Electrical	231	223	8	...	...	63,795	...	9	7,506	1,314	659	5	1,442	279	6	11,205	467,386	2,156	1,437	...	...	43,291	526	601,024	0.7
Strip—Hot rolled	145,238	121,490	23,748	358	10,695	44,125	33,681	13,280	232,611	20,628	296	4,298	3,363	5,057	60,589	107,818	23,315	6,348	12,037	50,640	619	10,141	5,608	669,255	0.8
—Cold rolled	39,068	3,382	35,686	...	3,516	74,819	2,115	21,366	102,150	2,274	448	1,878	859	30	27,365	49,498	23,349	53,716	43,206	112,629	13,084	21,590	340,365	929,943	1.1
TOTAL—ALL GRADES	7,015,130	2,897,616	4,117,514	932,720	589,863	16,172,333	8,742,202	3,147,437	12,123,989	3,155,235	1,200,735	52,833	5,370,806	454,042	1,239,999	4,543,458	2,440,750	1,724,726	1,701,256	5,550,717	176,903	2,595,474	7,819,586	83,852,578	100.0
%	...	...	4.9	1.1	0.7	19.3	10.4	3.8	14.5	3.8	1.4	0.1	6.4	0.5	1.5	5.4	2.9	2.1	2.0	6.6	0.2	3.1	9.3	100.0	...

TABLE 20—EXPORTS OF IRON AND STEEL PRODUCTS BY COUNTRIES OF DESTINATION 1980
(Net Tons)

| Products | Grand Total | Latin America | | | | | | | | | | | | | | Europe | | | | | | | | | | | | | |

TABLE 24—IMPORTS OF IRON AND STEEL PRODUCTS BY COUNTRIES OF ORIGIN—1980

(Net tons)

Products	Grand Total	Latin America							European Economic Community							Europe									Asia						Australia & Oceania			Africa	
		Canada	Mexico	Bahamas	Venezuela	Brazil	Argentina	Total Latin America	Sweden	Norway	United Kingdom	Nether-lands	Belgium-Luxem-bourg	France	Federal Republic of Germany	Italy	Total* E.E.C.	Finland	Austria	Czecho-slovakia	Poland	Spain	Yugoslavia	Greece	Romania	Total Europe	Israel	India	People's Republic of China	Korea Republic	China Taiwan	Japan	Total Asia	Australia	New Zealand	Total Australia & Oceania	Republic of South Africa	Total Africa
Steel Mill Products:																																				
Ingots, blooms, billets, slabs, etc.	155,343	102,640	—	—	—	12,729	—	12,729	11,613	—	19,199	—	335	277	2,868	671	23,350	—	165	—	—	826	—	—	—	35,954	—	—	2	—	4,003	4,005	15	—	15	—	—
Wire rods	829,259	370,509	2	—	4,460	13	—	4,496	11,122	—	959	6,081	21,021	104,987	16,333	4,445	153,869	277	558	1,886	—	5,441	—	—	—	173,176	—	15	—	17,077	708	245,636	263,436	—	—	—	17,642	17,642
Structural shapes—Plain 3" & over	1,739,543	258,854	18,296	—	—	19	2	18,317	13	132	73,591	62	293,275	46,090	136,621	363	550,164	—	1,072	—	14,002	174,015	—	—	—	739,754	—	10	—	1,619	878	626,058	628,566	784	—	784	93,268	93,268
Sheet piling	89,423	2,224	—	—	—	—	—	—	—	—	10,133	—	28,886	29,191	17,237	—	85,447	—	—	—	—	158	—	—	—	85,605	—	—	—	1,594	1,594	—	—	—	—	—
Plates	2,059,713	281,339	17	124	577	324,481	—	325,199	24,851	—	7,421	17,719	291,222	137,591	240,584	18,200	719,606	24,356	1,458	24	60,481	110,355	—	—	35,361	976,515	—	5	—	223,843	—	162,970	387,354	7,607	—	7,607	81,692	81,699
Rail and track accessories	271,172	105,475	18	—	—	—	—	18	6	—	6,822	2	7,919	13,463	70,315	294	98,815	—	1,690	—	—	—	—	—	—	100,511	—	—	—	28	—	64,922	65,168	—	—	—	—	—
Wheels and axles	142,904	17,136	314	—	—	24,518	—	24,832	6	—	170	6	1	47,741	914	2,214	51,046	—	6	—	—	—	—	—	—	51,058	—	—	—	—	—	49,802	49,802	—	—	—	76	76
Concrete reinforcing bars	78,639	16,283	3,088	—	—	15,955	—	19,043	—	—	—	—	439	—	208	—	647	—	—	—	—	14	—	—	—	661	—	—	—	8,531	320	25,020	33,871	—	—	—	8,781	8,781
Bar shapes under 3"	136,947	33,820	3	—	—	308	1,458	1,769	—	—	2,620	733	26,128	226	1,430	96	31,273	—	5	—	439	267	—	—	—	31,976	—	35	—	7,897	1,569	55,955	65,456	95	—	95	3,831	3,831
Bars—Hot rolled—Carbon	366,663	110,754	61	—	—	13,980	331	14,374	40	—	63,962	—	8,938	3,645	12,439	40	89,024	—	13	—	1,404	23,969	—	—	—	114,474	—	10,373	—	5,590	67	103,631	119,666	—	—	—	7,395	7,395
Bars—Hot rolled—Alloy	129,144	60,606	—	—	—	625	383	1,136	9,214	19	1,145	44	6	6,214	2,912	566	10,887	147	1,607	—	166	1,414	—	—	—	23,454	—	—	—	419	—	43,233	43,352	—	—	—	296	296
Bars—Cold finished	146,782	6,705	—	—	—	2,172	1,179	3,386	2,094	2	9,210	99	309	23,254	4,126	2,042	39,040	2,008	2,011	—	409	8,855	—	—	—	54,331	4	48	4	3,734	15	77,047	80,912	5	—	5	1,243	1,243
Hollow drill steel	1,814	1,081	—	—	—	—	—	—	—	—	40	—	—	13	—	—	53	—	—	—	612	—	—	—	—	665	—	—	—	—	—	18	18	—	—	—	50	50
Welded pipe and tubing	1,862,041	155,640	35,514	9,766	52,987	50,444	—	148,835	554	—	6,662	1,350	8,182	2,459	30,300	14,868	63,821	—	1	254	9,765	31,692	313	17,400	4,113	129,532	9,734	7	—	510,728	69,273	761,754	1,351,667	30,183	303	30,486	45,778	45,881
Other pipe and tubing	1,914,494	222,394	4,328	—	14,323	4,305	14,238	37,517	11,817	1	11,760	1,250	2,950	5,658	92,051	85,573	199,263	—	82	7,374	—	55,827	—	30,591	16,465	321,514	1,610	4	—	29,614	3,966	1,285,450	1,321,145	708	—	708	10,754	11,216
Round and shaped wire	377,789	98,292	169	—	—	1,432	—	1,755	6,585	1,552	15,810	4,494	48,758	37,807	14,140	1,669	122,679	343	184	—	2,268	4,117	—	—	—	137,728	1	1	—	10,144	1,423	118,771	130,363	1,203	2,154	3,357	6,294	6,294
Flat wire	17,264	472	40	—	—	—	—	40	1,976	—	620	33	3,052	3,857	889	7	8,458	92	19	—	—	—	—	—	—	10,547	—	19	—	731	—	5,454	6,204	1	—	1	—	—
Bale ties	457	5	412	—	—	—	—	412	—	—	—	—	18	—	—	—	18	—	—	—	—	—	—	—	—	18	—	—	—	2	—	—	2	—	—	—	—	—
Galvanized wire fencing	8,314	4,203	2,763	—	—	—	—	2,763	—	—	11	—	1,068	—	83	—	1,162	—	—	—	—	—	—	—	—	1,162	—	—	—	—	—	—	—	3	183	186	—	—
Wire nails	292,133	81,770	379	—	—	—	—	374	3	—	130	58	561	79	166	178	3,529	—	72	—	26,449	11,670	10,446	—	—	52,184	969	48	18,602	76,014	4,547	57,133	157,139	—	205	326	102	140
Barbed wire	18,957	448	1,406	—	—	—	662	2,386	—	—	—	20	5,024	61	—	—	5,105	—	—	—	3,512	735	—	—	—	9,352	—	29	19	6,215	42	82	6,498	—	111	111	142	142
Black plate	68,245	7,488	—	—	—	—	—	—	—	—	—	2,740	8	7,703	80	—	10,531	—	—	—	—	—	—	—	—	10,531	—	—	—	60	—	50,148	50,226	—	—	—	—	—
Tin plate	308,353	23,497	—	—	—	—	—	—	—	—	1,928	1,527	1,503	31,890	36,297	1	73,146	—	—	—	—	—	—	—	—	73,146	—	—	—	—	—	211,578	211,578	132	—	132	—	—
Terne plate	944	25	—	—	—	—	—	—	—	—	—	—	—	—	150	—	150	—	—	—	—	—	—	—	—	150	—	—	—	—	—	769	769	—	—	—	—	—
Sheets—Hot rolled	1,491,786	141,054	—	2,779	250	5,004	—	8,033	1,511	—	212	175,311	18,001	292,799	204,705	21,376	712,434	7,147	7,509	—	—	991	—	—	92	729,684	910	—	—	22,417	77	525,694	551,113	8,780	—	8,780	53,122	53,122
Sheets—Cold rolled	1,477,134	74,812	2	—	—	1,507	—	1,509	6,137	—	900	117,581	97,814	123,810	255,516	16,889	612,510	1,762	140	—	—	8,216	—	—	—	628,765	—	—	—	103,683	339	614,849	718,874	10,310	—	10,310	42,864	42,864
Sheets—Coated (incl. galvanized)	1,349,770	165,353	466	—	—	—	—	466	78	3	375	11,138	4,096	45,733	119,349	4,379	185,069	—	346	—	—	23,771	—	—	1,542	210,809	—	—	—	9,000	2,721	825,546	837,329	50,676	17,789	68,465	67,331	67,368
Sheets—Coated—Alloy	23	13	—	—	—	—	—	—	1	—	9	—	—	—	1	—	10	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	—	—	—	—	—
Strip—Hot rolled	15,806	5,239	41	—	—	219	—	260	46	—	78	—	262	40	2,770	67	3,217	—	10	—	—	68	—	—	—	3,341	—	—	—	2,372	4	4,306	6,682	241	43	284	—	—
Strip—Cold rolled	46,972	15,297	75	—	—	4	—	79	2,243	—	2,371	53	91	291	19,004	103	21,914	331	11	—	—	28	—	—	8	24,535	—	—	—	164	—	6,897	7,061	—	—	—	—	—
Strip—H.t & cold rolled—Alloy	15,328	5,666	—	—	—	1	—	1	2,012	—	587	—	49	1,087	1,263	13	2,999	—	17	—	—	1	—	—	—	5,029	—	—	—	13	—	4,616	4,629	—	3	3	—	—
Sheets—Other—Electric coated	81,854	427	1	—	—	8	—	9	—	—	59	—	143	1,021	6,317	—	7,541	—	—	—	—	—	—	—	—	7,541	—	—	—	—	—	73,877	73,877	—	—	—	—	—
Total Steel Mill Products	15,494,970	2,369,501	67,395	12,669	72,597	457,724	18,253	629,938	91,921	1,709	236,784	340,302	870,058	966,987	1,289,068	174,054	3,886,777	36,463	16,976	9,538	119,498	462,430	10,759	47,991	57,581	4,743,912	13,228	10,594	18,027	1,039,895	85,949	6,006,813	7,178,656	110,743	20,791	131,655	440,661	441,308
Carbon	14,783,625	2,222,546	66,132	12,669	71,332	447,252	16,893	615,079	41,142	1,687	196,778	336,569	865,857	913,347	1,219,035	153,258	3,694,295	31,925	12,470	9,538	118,784	451,619	10,759	47,991	57,581	4,479,948	13,228	10,590	18,021	1,035,216	85,567	5,727,312	6,894,071	110,300	20,788	131,209	440,178	440,772
Alloy	558,671	131,883	53	—	1,265	8,499	1,001	11,317	32,140	3	36,883	3,662	705	36,738	63,050	16,868	157,949	2,847	4,411	—	681	2,947	—	—	—	201,069	—	—	6	366	382	213,070	213,827	198	—	198	346	377
Stainless	152,674	15,072	1,210	—	—	1,973	359	3,542	18,639	19	3,123	71	3,496	16,902	6,983	3,928	34,533	1,691	95	—	33	7,864	—	—	—	62,835	—	4	—	4,313	—	66,431	70,748	245	3	248	137	159
Other Steel Products:																																				
Structural shapes, fabricated	174,422	67,978	1,687	—	—	40	—	1,729	999	3	2,036	386	181	624	1,438	14,515	19,237	—	3,793	—	—	78	—	—	—	24,180	—	161	—	2,243	641	69,138	80,309	210	16	226	—	—
Shapes—Cold formed	966	122	—	—	—	—	—	—	22	—	60	—	6	—	118	—	184	—	8	—	—	3	—	—	—	217	—	—	—	—	11	18	29	—	—	—	—	—
Sashes and frames	501	377	18	—	—	—	—	18	17	—	1	48	—	2	14	—	65	—	—	—	—	—	—	—	—	82	—	—	—	19	—	—	23	1	—	1	1,475	1,475
Fence or sign posts	2,154	45	338	—	24	—	—	362	—	—	—	—	28	—	—	—	28	—	—	—	—	—	—	—	—	28	—	222	—	—	22	—	244	—	—	—	—	—
Wire—Nonmetallic covered	331	13	1	—	—	—	—	1	—	—	6	9	10	2	8	—	53	—	—	—	—	—	—	—	—	57	—	—	—	186	47	17	260	—	—	—	—	—
Wire rope	90,622	3,616	307	—	—	161	—	2,197	6	2,486	1,127	572	8,445	10,043	1,302	106	21,778	1	—	—	—	1,563	—	—	—	26,032	76	41	—	45,825	978	13,291	60,211	2	2	4	1,562	1,562
Wire strand	157,396	5,769	—	—	—	3,906	—	3,947	6	11	374	281	7,032	2,629	688	653	11,657	—	—	—	—	9,657	—	—	—	22,556	215	474	—	17,464	848	87,051	106,054	131	—	131	20,904	20,939
Welded wire fabric	19,027	13,794	2,607	—	—	—	—	2,607	—	—	218	869	1,188	3	8	1	2,287	—	—	—	—	46	—	—	—	2,335	—	—	113	—	29	143	285	—	6	6	—	—
Other nails and staples	24,684	3,210	—	—	—	—	—	721	1,407	—	1,171	255	25	1,485	2,170	469	5,575	—	699	—	939	1,294	—	—	—	9,915	143	—	138	6,367	198	4,870	11,791	33	1	36	11	11
Bale ties—Strip	2,050	—	224	—	—	—	—	224	—	—	774	—	31	—	971	—	1,776	—	—	—	—	—	—	—	—	1,776	—	—	—	50	—	—	50	—	—	—	—	—
Bolts, nuts and rivets	429,679	40,294	1,345	—	—	57	1,639	3,087	817	—	1,047	3,392	94	325	4,483	3,984	13,477	3	173	—	9,912	2,998	5,806	—	—	35,017	169	11,693	7,094	8,421	52,870	266,872	350,059	838	12	850	372	372
Grinding balls	16,147	14,051	406	—	—	29	—	437	13	—	23	—	936	—	6	106	1,071	—	—	—	—	196	—	—	—	1,280	—	—	—	—	—	379	379	—	—	—	—	—
Blanks, nontrectangular flat rolled	6,011	1,421	14	—	—	19	—	33	25	—	33	26	—	1,399	176	—	1,634	—	6	—	—	184	—	—	—	1,849	—	—	—	88	—	2,576	2,664	19	—	19	25	25
Rigid conduit	2,053	287	25	—	—	—	—	25	—	—	25	2	1	1	356	—	384	—	—	—	—	3	—	—	—	387	129	—	—	1,091	1	146	1,579	—	—	—	—	—
Pipe and tube fittings	88,264	4,786	33	—	—	4,337	—	4,756	88	570	7,373	346	83	3,599	5,260	8,083	24,876	—	13	—	—	3,883	—	—	476	29,925	1,052	5,559	—	1,794	2,934	36,155	47,887	799	—	799	110	111
Total Other Steel Products	1,016,709	152,763	6,980	—	24	8,549	1,639	20,119	3,400	3,070	14,268	6,186	18,060	20,111	17,115	27,917	104,002	4	4,692	—	10,852	19,902	5,806	—	476	155,636	1,784	18,150	7,345	83,508	58,579	480,656	661,624	2,033	37	2,072	24,459	24,495
Total Steel Products	16,511,679	2,522,264	74,375	12,669	72,621	466,273	19,892	650,057	95,321	4,779	251,052	346,488	888,118	987,098	1,306,183	201,971	3,990,859	36,467	21,668	9,538	130,350	482,332	16,565	47,991	58,057	4,899,548	15,012	28,744	25,372	1,123,403	144,528	6,487,469	7,840,280	112,776	20,828	133,727	465,120	465,803
Iron Products & Ferroalloys:																																				
Bar iron, iron slabs & blooms, etc.	1,144	—	45	—	—	—	—	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cast iron soil pipe and fittings	742	5	39	—	—	—	—	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	—	20	1,079	1,079
Other cast iron pipe and fittings	5,842	2,702	106	—	—	—	2	108	—	—	44	43	—	3	35	—	125	—	—	—	—	—	—	—	—	125	—	—	—	65	44	20	698	—	—	—	—	—
Malleable cast iron pipe fittings	17,275	274	—	—	—	142	2	142	2	—	264	4	42	42	48	—	358	—	—	—	—	2	—	—	—	408	11	787	—	1,682	184	203	2,904	3	—	3	17	17
Castings and forgings	117,655	6,649	4,906	—	—	4,873	—	9,838	991	—	8,244	59	270	2,587	5,782	20,734	37,676	—	5	—	316	1,778	184	—	—	42,300	355	46,329	32	3,115	2,722	9,079	16,438	—	—	—	1,191	1,191
Pig iron	400,035	222,367	15	—	—	84,863	—	84,878	18,658	—	6	—	—	8,746	—	—	8,752	—	—	—	—	—	—	—	—	27,410	—	—	—	—	—	12	12	46,482	—	46,482	18,886	18,886
Sponge iron	65,793	63,192	11	—	—	—	—	11	376	—	143	—	183	19	639	40	1,024	19	—	—	—	—	—	—	—	1,419	—	—	—	—	—	1,171	1,171	—	—	—	—	—
Ferromanganese (manganese content)	473,399	13,513	32,951	—	—	9,552	—	42,503	—	17,529	—	—	4,311	170,188	21	—	174,520	—	—	—	—	9,640	3,353	—	—	214,441	—	—	—	—	201	12,173	12,374	15,673	—	15,673	174,895	174,895
Ferrosilicon (silicon content)	46,967	9,869	—	—	4,632	10,311	—	16,269	—	8,719	—	—	—	4,728	1,132	236	6,096	—	—	—	—	—	—	—	—	17,076	—	—	—	—	—	—	—	—	—	—	2,853	2,853
Ferrochromium (chromium content)	162,443	—	—	—	—	2,855	—	2,855	6,636	—	—	—	—	176	3,600	14	3,790	—	—	—	—	1,485	13,196	—	—	28,695	—	—	—	37	—	1,801	1,838	—	—	—	116,036	129,055
Other ferroalloys	75,046	601	—	—	—	12,544	10	24,642	121	9,412	318	—	314	2,912	37	165	3,746	—	50	—	—	3	8,477	—	—	27,041	—	—	—	—	201	1,211	1,412	—	—	—	3,485	17,865
Total Iron Products & Ferroalloys	1,366,341	319,172	38,073	—	4,632	125,140	12	181,330	26,784	35,660	9,019	106	5,078	189,401	11,294	21,189	236,087	19	55	—	316	12,908	25,210	—	—	359,815	366	48,720	32	6,111	8,153	29,575	94,479	62,219	—	65,704	332,822	345,841
Grand Total	17,878,020	2,841,436	112,448	12,699	77,253	591,413	19,904	831,387	122,105	40,439	260,071	346,594	893,196	1,176,499	1,317,477	223,160	4,226,946	36,486	21,723	9,538	130,666	495,240	41,775	47,991	58,057	5,259,363	15,378	77,464	25,404	1,129,514	152,681	6,517,044	7,934,759	174,995	20,828	199,431	797,942	811,644
Iron and Steel Scrap	558,142	475,965	25,789	1,561	—	—	—	36,440	7,787	—	455	7,876	69	4,371	97	39	12,907	—	18	—	—	—	—	—	—	20,739	58	—	—	104	—	24,798	24,962	26	—	26	10	10

* Includes totals for Ireland and Denmark.
Country total may not add to regional total because of omissions of some countries.

TABLE 26—IMPORTS OF IRON AND STEEL BY CUSTOMS DISTRICT—1980

(Net tons)

Products	Grand Total	Atlantic Coast									Gulf Coast-Mexican Border							Pacific Coast					Off Shore			Great Lakes Canadian Border											
		Boston	Providence Bridgeport	New York City	Philadelphia	Baltimore-Wash., D.C.	Norfolk	Wilmington	Charleston	Savannah	Tampa	Miami	Total	Mobile	New Orleans	Port Arthur	Galveston	Dallas Houston	Laredo	El Paso Nogales	Total	San Diego	Los Angeles	San Francisco	Portland	Seattle	Total	Anchorage	Honolulu	San Juan	Total	Portland	St. Albans	Ogdensburg	Buffalo	Great Falls	Pembina	Duluth Minneapolis	Milwaukee	Detroit	Chicago	Cleveland	St. Louis	Total
Steel Mill products:																																								
Ingots, blooms, billets, slabs, etc.	155,343	4	20	128	1,429	8,438	6	—	12	—	—	—	10,037	—	3,345	—	—	8,429	—	—	11,774	—	4,096	100	195	41	4,432	—	—	301	301	1	—	3,964	8,299	—	—	—	1,919	98,376	10,060	6,180	—	128,799
Wire rods	829,259	164	36,719	12,364	29,588	14,313	2,106	1,377	5,533	3,979	24,179	1	129,313	6,643	67,596	—	—	18,235	2	—	92,416	—	108,666	23,207	—	9,969	143,242	—	—	9,910	9,910	—	43,838	100,559	83,812	—	—	—	25	168,156	33,047	28,811	430	455,678
Structural shapes—Plain 3" & over	1,739,543	119	81,421	1,450	40,571	38,155	2,106	9,758	24,773	32,125	53,470	4,490	288,438	25,335	177,681	—	—	128,113	18,208	128	572,160	72	266,347	141,862	109,157	48,989	566,427	—	—	20,511	20,511	427	13,466	21,561	95,374	56	14,296	124	—	116,082	29,434	9,367	2,837	302,966
Sheet piling	89,425	2	14,890	—	319	881	2	—	2,232	2,110	1,417	4,033	25,884	619	14,592	1,184	2,367	23,266	—	—	42,128	—	669	2,556	2,451	2,726	8,331	—	—	821	718	1,539	—	—	—	11	—	—	—	4,518	5,419	1,591	—	11,539
Plates	2,059,713	43	54,516	4,564	83,831	12,120	2,779	18,379	10,129	37,901	48,047	2,504	274,813	79,989	370,356	—	—	—	—	16	955,409	—	181,706	33,017	63,797	44,861	323,381	—	—	1,007	6,120	7,127	1,136	5,746	8,700	61,153	162	—	275	2,548	270,859	93,598	55,003	—	498,983
Rail and track accessories	271,172	—	36	5	5,804	25,227	7	41	18	737	51	2,806	34,732	5,389	12,010	—	—	19,988	18	—	37,405	762	65,184	8,361	10,021	4,108	88,436	—	—	—	—	—	5,964	5,657	2,132	22,173	165	1,170	237	—	68,432	2,605	2,064	—	110,599
Wheels and axles	142,904	74	213	640	15,984	12,369	76	—	4,020	64	—	15	33,455	3,610	14,524	—	—	45,952	—	313	64,399	26	37	796	3,613	15,282	19,754	60	—	—	60	395	645	5,084	1,533	2	369	—	—	7,008	2,236	42	890	25,236
Concrete reinforcing bars	78,639	—	14	138	4	—	—	—	—	20	—	—	172	—	219	—	—	4,737	3,042	85	8,083	2	19,256	2,242	550	5	22,055	—	44	39,247	39,291	236	2,525	2,574	2,503	—	—	—	—	1,180	20	—	—	9,038
Bars shapes under 3"	32,947	32	8,001	814	3,205	3,803	—	424	252	481	1,424	276	18,712	437	2,691	—	22	6,290	—	—	9,449	—	4,455	8,921	9,168	6,788	70,512	—	410	2,876	3,286	66	6,988	906	10,246	4	2,956	—	—	11,762	1,782	287	—	34,997
Bars—Hot rolled—Carbon	366,663	150	1,423	2,566	6,526	1,614	89	72	1,503	1,780	1,749	1,220	18,692	1,838	13,989	—	—	31,293	35	—	47,155	24	60,187	14,398	15,659	5,459	95,637	—	583	10,124	10,707	571	4,957	10,091	27,638	—	6,019	—	177	45,850	17,327	32,042	—	185,472
Bars—Hot rolled—Alloy	129,144	1,312	3,444	3,228	12,847	2,123	1,335	90	1,784	356	—	—	26,559	—	28,843	—	—	5,092	154	79	34,168	—	5,092	154	79	134	5,459	—	—	8	8	—	55	54	21,955	85	—	29	—	41,352	3,207	1,538	—	68,275
Bars—Cold finished	146,782	800	2,957	10,158	21,346	6,656	640	85	5,166	752	1,615	691	50,866	—	10,921	—	—	25,993	—	9	36,923	18	28,924	3,062	5,061	2,289	39,444	—	—	929	929	—	158	—	732	—	—	663	6	7,352	5,303	1,321	1	18,220
Hollow drill steel	1,814	—	—	20	18	625	—	—	—	—	—	—	643	—	—	—	—	50	—	—	50	—	—	—	—	—	—	—	—	—	—	—	—	—	732	—	—	—	—	369	—	—	—	1,101
Welded pipe and tubing	1,862,041	12	19,375	11,147	72,659	4,306	1,995	16,898	19,530	15,190	46,871	12,489	220,472	10,237	288,414	—	283	662,248	31,700	1,525	994,407	3	298,956	75,170	48,060	55,049	475,238	1,337	4,133	4,463	9,933	408	5,120	7,052	30,006	29,997	5,458	3,502	299	69,736	9,867	133	413	161,991
Other pipe and tubing	1,914,494	57	7,731	17,173	37,152	14,209	4,970	2,026	392	12,316	10,594	206	106,826	2,846	108,084	—	1,626	1,179,075	4,137	41	1,295,809	2	133,002	27,352	40,222	52,403	252,981	20,655	198	8,593	29,446	80	1,825	4,760	23,041	15,298	2,114	77	107	178,748	1,661	1,720	1	229,432
Round and shaped wire	377,789	4,691	5,277	46,210	14,836	20,322	3,481	3,194	7,807	7,506	4,510	2,334	120,168	4,334	34,953	—	—	15,612	245	—	55,144	25	21,751	7,742	3,565	17,963	50,146	1	2,079	11,389	13,669	2,966	18,222	21,879	22,657	23	24	212	843	33,920	35,117	2,772	27	138,662
Flat wire	17,264	1,969	436	6,673	208	1,344	203	—	752	115	22	—	11,122	39	402	—	—	137	40	4	622	—	1,706	895	273	339	3,213	—	—	—	—	—	106	162	294	—	—	—	—	239	536	2	—	1,339
Bale ties	457	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	412	2	—	—	—	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Galvanized wire fencing	8,314	571	—	—	4	—	122	226	—	3	15	347	21	—	809	—	—	100	—	—	909	57	6	—	104	—	436	—	—	—	—	75	33	2,384	1,023	—	—	—	—	602	47	—	—	4,164
Wire nails	292,133	5,432	678	21,836	9,268	7,863	1,235	15,767	3,017	9,684	7,087	2,771	85,706	411	21,213	—	—	24,939	349	—	46,912	419	24,803	28,838	4,097	14,251	72,408	12	564	1,852	2,428	1,207	16,915	28,176	7,604	—	1	97	32	15,732	13,564	261	1,090	84,679
Barbed wire	18,937	103	—	194	473	719	395	542	1,021	920	2,169	126	6,572	441	2,167	—	—	2,003	1,500	—	6,111	—	662	1,847	527	638	3,674	—	14	1,999	2,110	4	215	97	77	—	—	—	—	77	—	—	—	470
Black plate	68,245	—	707	—	26,242	3,184	—	—	464	—	—	—	30,597	19	2,854	—	—	2,833	—	—	5,706	—	4,647	4,574	—	31	9,252	—	—	—	—	9	119	69	566	—	—	—	—	9,006	1,860	11,061	—	22,696
Tin plate	308,553	—	3,167	—	17,184	5,992	—	—	—	156	4,078	6,154	36,731	886	23,116	—	—	12,259	—	—	36,261	—	47,295	81,320	—	739	129,354	—	36,260	25,661	61,921	—	54	66	12,534	—	—	—	—	10,380	12,333	8,919	—	44,086
Terne plate	944	—	—	—	56	—	—	—	—	—	—	—	56	—	161	—	—	28	—	—	189	—	158	—	—	—	158	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	541
Sheets—Hot rolled	1,491,786	32	70,503	3,660	86,578	5,786	916	6,026	5,528	2,160	17,718	8,907	207,814	37,245	91,920	—	—	316,599	—	—	445,764	—	315,293	53,086	76,290	34,383	479,052	—	170	1,197	1,367	30	3,502	1,330	8,669	212	29	3	262	139,639	92,364	110,512	1,240	357,789
Sheets—Cold rolled	1,477,134	442	105,099	33,513	142,735	5,886	228	12,393	18,573	16,026	1,955	2,916	344,766	6,409	141,059	—	—	107,895	2	21	255,386	—	400,683	85,380	8,261	9,513	504,477	—	58	5,470	5,528	147	3,529	9,771	18,320	—	3	2,345	269	109,158	112,545	184,496	30,297	466,977
Sheets—Coated (incl. galvanized)	349,770	—	25,992	2,498	110,682	10,073	—	—	10,704	23,476	3,493	41,389	228,274	3,469	135,174	—	—	169,923	462	—	309,028	4	195,070	103,311	57,941	60,549	416,875	—	2,769	13,393	16,162	5	391	561	43,727	—	1,970	—	425	208,339	34,239	32,384	—	321,981
Sheets—Coated—Alloy	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—	8	—	—	—	—	—	—	—	—	—	—	—	—	—	15	—	—	—	—	1	—	—	—	14
Strip—Hot rolled	15,906	5	731	543	1,381	—	23	65	33	24	669	22	3,496	3	798	—	—	788	29	—	1,628	—	2,235	810	833	415	4,293	—	246	610	856	—	323	98	1,416	—	3	—	40	3,639	—	14	—	5,533
Strip—Cold rolled	46,972	479	8,936	6,199	67	680	110	760	380	180	22	3	17,816	7	1,500	—	—	1,403	61	—	2,964	9	1,382	1,066	399	276	3,132	—	—	2,240	2,240	22	324	2,713	7,346	24	—	—	2	7,022	2,458	872	17	20,800
Strip—Hot & Cold rolled—Alloy	15,528	345	550	2,848	943	728	131	314	2	5	21	112	5,999	7	381	—	—	16	—	3	407	—	276	1,662	1,286	1,006	4,230	—	—	—	—	—	4	215	97	77	—	—	—	146	3,240	1,001	56	5,779
Sheets—Other—Electric coated	81,854	—	—	293	10,164	55	12	4	22	13	—	—	10,563	233	8,380	—	—	18,335	—	—	27,348	—	5,882	29,418	—	—	35,300	—	—	3,834	3,834	1	4	1,351	90	—	—	—	—	702	2,664	1	—	4,809
Total Steel Mill Products	15,494,970	15,745	452,858	188,381	752,100	207,471	21,935	99,609	136,114	184,430	271,480	76,471	2,406,574	190,439	1,569,791	1,184	4,298	3,562,312	62,491	2,149	5,392,664	1,835	2,240,168	743,108	462,616	383,236	3,830,963	22,065	51,631	168,433	242,129	13,557	133,717	237,010	514,265	46,028	34,364	7,561	7,240	1,676,917	602,779	337,350	11,852	3,622,640
Carbon	14,783,625	11,117	433,958	128,507	685,898	176,070	16,530	97,790	128,078	176,692	271,174	76,279	2,202,093	186,217	1,510,841	1,184	4,297	3,444,199	61,277	2,136	5,210,151	1,810	2,163,754	735,735	453,161	375,338	3,729,798	21,940	51,114	164,351	237,405	10,894	132,671	228,666	477,450	43,822	34,216	7,528	5,934	1,561,975	566,280	322,905	11,843	3,404,178
Alloy	558,671	1,930	15,603	26,401	39,875	22,866	4,443	1,235	7,849	6,767	135	73	127,175	4,222	54,229	—	—	103,575	44	3	162,874	4	52,065	5,421	8,210	6,871	72,171	104	438	3,433	3,995	2,833	91	1,182	24,481	2,206	3	154	33	1,014	107,370	29,267	13,822	1	192,256
Stainless	152,674	2,698	3,477	33,473	26,323	8,541	962	584	187	971	171	119	77,306	—	4,721	—	—	14,538	1,170	10	20,439	21	23,749	1,952	1,245	1,027	27,994	21	59	649	729	28	955	7,162	2,334	—	—	—	—	292	7,572	7,252	623	26,296
Other Steel Products:																																									
Structural shapes, fabricated	174,422	670	14	2,165	1,402	3,442	6,022	5,816	650	813	5,718	533	27,445	—	29,242	—	259	9,028	1,412	10	39,951	268	23,448	1,562	12,059	7,439	44,767	1,522	197	329	2,048	11,219	5,444	7,572	17,603	3,999	788	77	375	12,468	49	617	—	60,211
Shapes—Cold formed	368	169	1	6	21	4	—	—	14	15	—	—	166	—	—	—	—	40	—	—	40	—	—	18	—	1	19	—	—	—	—	—	—	—	112	—	—	—	—	10	8	3	—	143
Sashes and frames	501	1	—	31	—	—	—	—	—	—	—	—	37	—	—	—	—	—	18	—	18	—	2	3	19	—	24	1	—	5	6	1	11	11	281	30	9	—	—	—	73	1	—	—	417
Fence or sign posts	2,154	16	—	2	24	—	3	4	—	—	—	—	49	—	112	—	—	1,475	338	—	1,925	—	91	41	—	—	132	—	—	—	—	—	—	—	—	—	—	—	—	40	3	—	—	48
Wire—Nonmetallic covered	631	—	—	38	—	—	—	—	—	—	—	—	73	1	3	—	—	4	—	—	12	—	175	3	—	45	223	2	1	2	5	1	—	1	—	1	—	—	—	—	6	6	3	1	18
Wire rope	95,622	1,845	28	5,966	689	5,590	6,953	3,322	4,863	6,008	754	2,138	37,956	2,497	13,848	—	309	19,876	135	4	36,669	217	3,231	3,266	4,588	5,775	17,077	—	304	305	609	51	315	831	469	119	13	96	—	271	1,696	—	3	3,861
Welded strand	157,396	334	692	12,498	7,192	7,254	3,322	3,346	1,189	10,575	4,591	6,304	57,297	3,787	12,384	56	—	41,650	17	3	57,894	6	8,905	10,917	1,442	1,453	23,121	—	1,560	725	2,285	2	184	49	2,452	22	—	—	—	658	1,278	2	632	4,899
Welded wire fabric	19,027	122	—	622	32	86	21	—	1,055	21	165	21	1,046	—	60	—	—	60	2,505	—	2,625	102	436	307	24	431	1,360	—	6	424	430	276	6,473	1,259	3,448	—	12	—	—	936	133	—	29	13,506
Other nails and staples	24,684	769	172	1,467	459	502	233	1,808	462	1,403	1,157	1,204	9,636	174	1,956	—	108	3,883	1,104	108	6,923	—	1,278	236	—	—	1,514	—	14	313	327	2	70	304	1,246	—	2	1	1	799	2,785	22	175	5,407
Bale ties—Steel	2,050	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	162	152	224	—	538	—	1,276	236	—	—	1,512	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bolts, nuts and rivets	429,679	3,832	2,558	51,319	19,948	38,656	3,183	3,450	544	20,423	2,592	2,294	148,799	8,843	12,470	—	17	32,052	143	13	53,538	1,847	85,047	6,591	6,716	52,981	153,182	9	178	670	857	51	550	10,438	5,285	60	263	1,182	112	23,489	28,055	3,682	136	73,303
Grinding balls	16,147	—	—	107	583	—	—	—	—	—	6	—	696	376	—	—	—	—	100	306	782	—	377	13	13	8	391	—	—	196	196	8	111	3,932	48	74	4,851	—	—	—	5,020	1	6	—	14,082
Blanks, nontractangular flat rolled	6,011	1	—	298	503	5	1	—	43	118	31	—	1,002	—	1,063	—	—	22	14	—	1,099	—	1,653	219	225	69	2,166	—	26	316	342	26	96	155	498	4	1	—	—	1,112	10	—	—	1,428
Rigid conduit	2,053	25	—	563	30	—	—	—	—	—	—	—	588	—	—	—	—	—	—	—	—	—	1,161	—	—	—	1,164	—	—	—	—	—	—	227	25	2	1	—	—	40	6	—	—	301
Pipe and tube fittings	88,264	99	—	9,137	520	2,413	396	53	148	1,294	2,739	375	17,174	1,263	5,667	—	—	35,183	28	7	42,148	2	4,602	768	732	1,816	7,920	8	—	19	27	6	78	325	631	178	19	144	4	3,893	15,698	5	14	20,995
Total Other Steel Products	1,016,709	7,825	3,465	84,419	30,790	58,336	20,141	19,340	9,093	35,398	19,079	11,328	299,414	16,944	76,805	56	748	140,820	4,934	343	240,650	2,442	134,347	25,035	34,217	74,820	270,861	1,545	2,261	3,299	7,105	11,635	13,248	21,284	35,156	4,450	1,170	6,361	504	49,815	49,729	4,340	987	198,679
Total Steel Products	16,511,679	23,570	456,323	272,800	782,890	266,007	42,076	118,949	145,207	219,828	290,559	87,799	2,705,988	207,383	1,646,596	1,240	5,046	3,703,132	67,425	2,492	5,633,314	4,277	2,374,515	768,143	496,833	458,056	4,101,824	23,610	53,892	171,732	249,234	25,192	146,965	258,294	549,421	50,478	35,534	13,922	7,744	1,726,732	652,508	341,690	12,839	3,821,319
Iron Products & Ferroalloys:																																									
Bar iron, iron slabs & blooms, etc.	1,144	—	—	—	—	—	—	—	—	—	—	—	—	—	1,079	—	—	—	—	—	1,144	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cast iron soil pipe and fittings	742	6	—	95	—	—	—	—	—	—	—	—	116	—	—	—	—	29	45	—	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other cast iron pipe and fittings	5,842	960	—	117	45	36	212	—	15	8	16	—	1,409	24	56	2	—	23	26	—	153	39	266	166	—	65	536	—	—	—	—	—	5	—	—	—	—	—	—	62	—	67
Malleable cast iron pipe fittings	17,275	2	—	3,624	80	945	4	6	725	1,232	31	6,649	12	551	—	—	45	26	—	155	110	561	318	21	183	1,083	—	7	28	35	43	168	58	631	6	58	13	—	1,717	157	8	191	3,050
Castings and forgings	117,655	776	1,063	21,387	5,102	9,650	3,649	2,025	1,085	4,343	43	40	49,161	1,347	4,712	—	152	23,708	398	5,588	2,199	28	5,638	39	6	896	6,579	—	16	104	120	—	—	242	234	—	3	—	—	94	426	49	17	1,065
																					2,862																						
Pig Iron	400,035	—	—	—	46,003	—	—	—	96	38,645	—	—	84,744	3,849	8,659	—	—	15,477	13,132	—	41,117	3,022	5,588	6,283	737	2,811	18,441	—	—	—	—	397	2,294	1,214	945	66	—	1	334	2,038	8,713	1,760	127	17,889
Sponge iron	65,793	—	82	462	5,297	103	53	—	—	—	—	—	6,597	—	—	—	—	—	—	—	—	—	8,861	33,218	—	—	9,210	48,289	—	—	—	—	3,333	3,217	1,697	20,698	—	—	—	—	19,748	31,094	46,136	100,052	—	225,885
Ferromanganese (manganese content)	473,399	—	—	5	31,754	61,648	—	—	—	—	—	—	93,407	4,386	252,177	—	—	330	4,945	419	262,257	—	474	—	—	—	474	—	—	—	—	21	4,230	28,164	14,441	—	—	11	9	33	11,495	294	—	—	58,887
Ferrosilicon (silicon content)	46,967	—	47	60	200	8,109	17	—	733	111	112	—	9,419	1,202	18,894	—	—	2,680	—	—	22,976	—	4,780	26,569	3,450	—	34,799	—	—	201	201	—	—	1,831	12,182	—	—	—	—	16,324	46,761	5,637	—	82,735
Ferrochromium (chromium content)	162,443	—	5,594	731	17,000	31,193	101	139	—	—	—	—	54,758	—	105,288	—	—	3,686	—	—	109,660	—	815	168	71	267	1,054	—	—	—	—	—	—	364	—	841	1,218	4,920	—	—	265	6,143	501	30	—	13,918
Other ferroalloys	75,046	11	—	241	9,783	24,715	—	—	381	184	—	1	35,316	754	26,774	—	—	1,338	—	—	28,866	—	591	70	215	23	899	—	—	—	—	—	—	—	—	—	—	—	—	—	1,133	—	—	1,134
																						—	3,235	722	1,267	4	5,228	—	201	—	202	—	—	139	3,994	—	—	—	19	1,088	75	119	—	5,434
Total Iron Products & Ferroalloys	1,366,341	1,755	6,786	26,722	115,894	136,399	4,032	2,168	2,316	44,031	1,403	72	341,578	11,574	418,090	2	152	46,184	18,546	1,921	496,469	3,171	27,809	67,553	5,767	13,218	117,518	—	234	678	912	3,734	10,755	34,473	58,045	72	58	26	20,400	69,993	104,196	107,655	397	409,664
GRAND TOTAL	17,878,020	25,325	463,089	299,522	898,784	402,406	46,108	121,117	147,523	263,859	291,962	87,871	3,047,566	218,957	2,064,686	1,242	5,198	3,749,316	85,971	4,413	6,129,783	7,448	2,402,324	835,696	502,600	471,274	4,219,342	23,610	54,126	172,410	250,146	28,986	157,720	292,767	607,466	50,550	35,592	13,948	28,144	1,796,725	756,704	449,345	13,236	4,231,183
Iron and Steel Scrap	558,142	6	—	244	2,197	646	10	—	—	178	—	1,588	4,869	—	163	—	13	57	22,585	13,172	35,990	9,975	24,684	—	46	—	140,755	173,460	—	—	—	—	488	910	7,507	52,564	290	391	3,777	—	239,777	6,714	29,056	349	341,823